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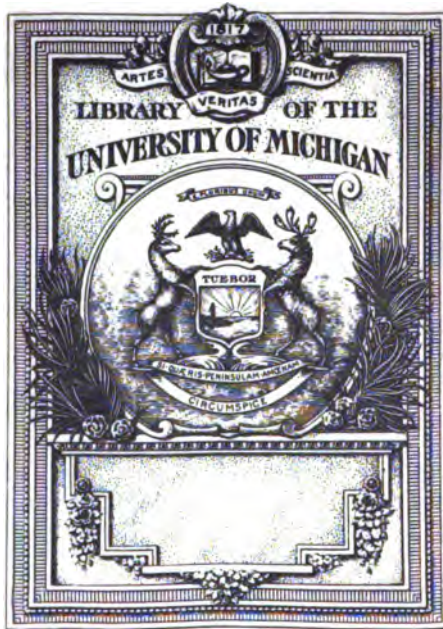
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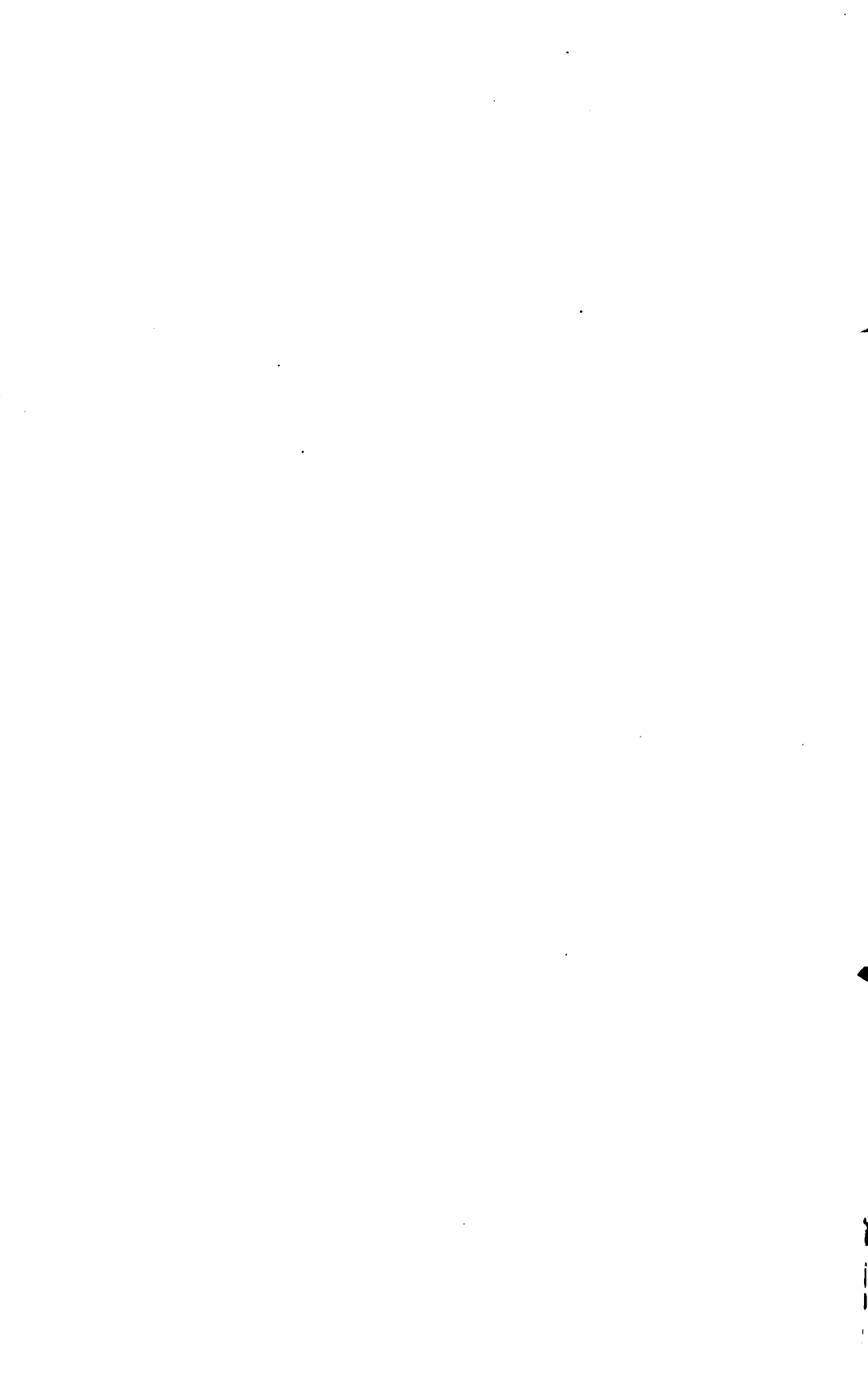
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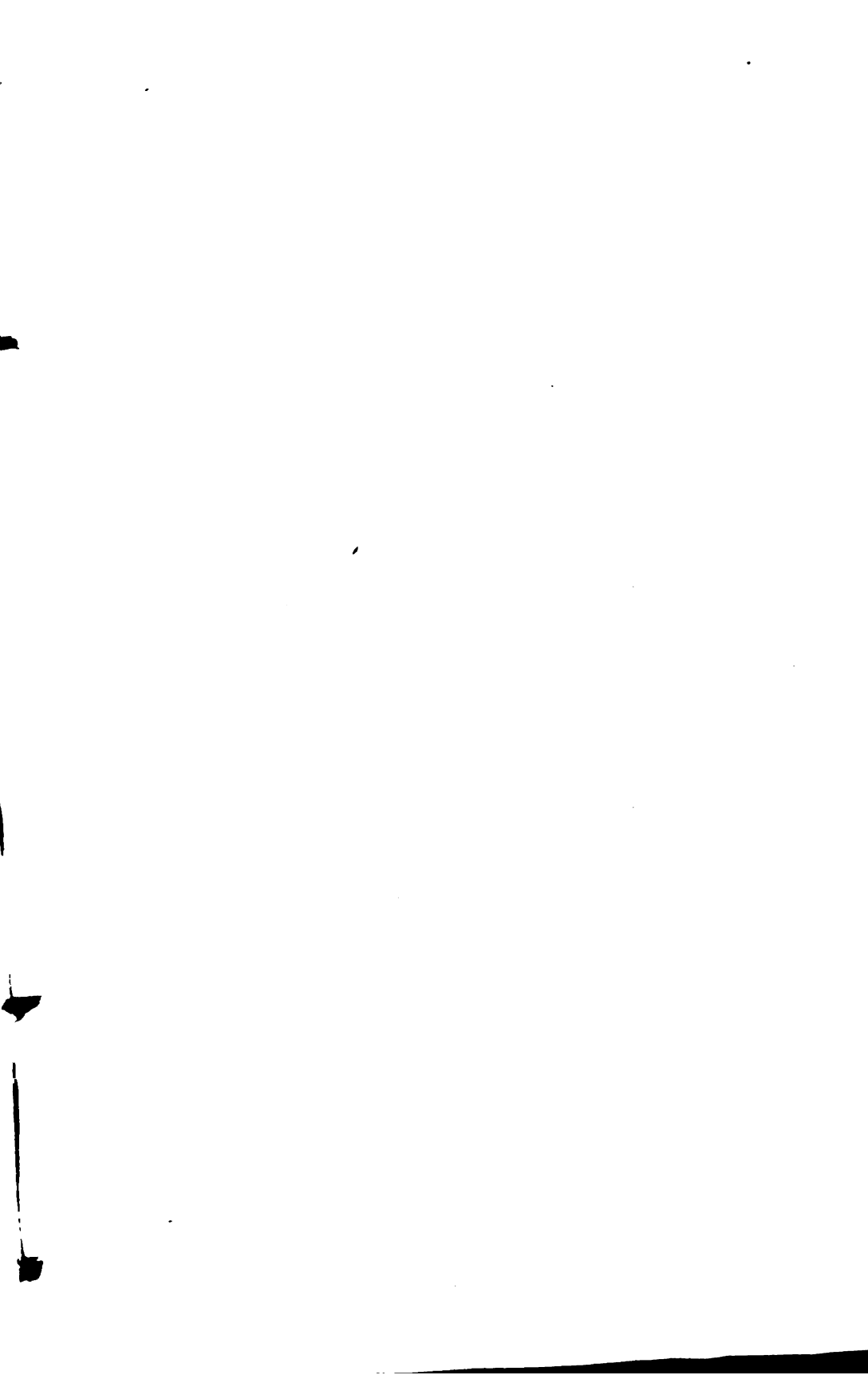
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ANNUAL REPORTS

OF THE

U.S. DEPARTMENT OF THE INTERIOR

FOR THE

FISCAL YEAR ENDED JUNE 30, 1901.

MISCELLANEOUS REPORTS.

**PART I.
BUREAU OFFICERS, ETC.**

**WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1901.**



REPORT

OF THE

COMMISSIONER OF PATENTS.

DEPARTMENT OF THE INTERIOR,
 UNITED STATES PATENT OFFICE,
 Washington, D. C., August 19, 1901.

SIR: Complying with the request contained in your letter of June 22, 1901, I beg to submit herewith the following report of the business of the United States Patent Office for the fiscal year ended June 30, 1901:

Applications and caveats received.

Applications for letters patent.....	42, 082
Applications for design patents.....	2, 368
Applications for reissue patents.....	101
Applications for registration of trade-marks.....	2, 312
Applications for registration of labels.....	1, 036
Applications for registration of prints.....	176
Caveats.....	1, 860
Total.....	49, 935

Applications awaiting action.

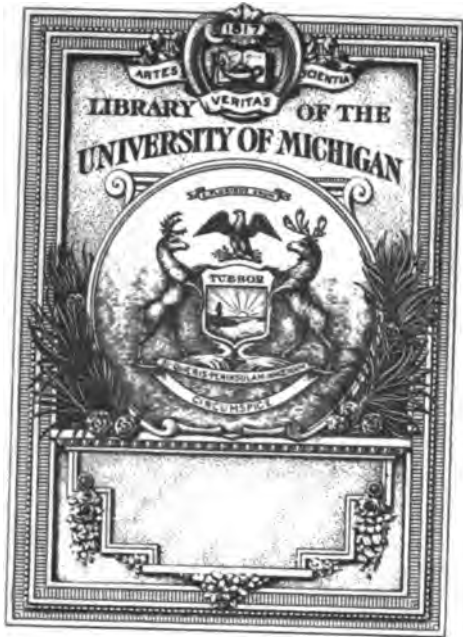
Number of applications awaiting action on the part of the Office on July 1, 1901. 7, 683

Applications for patents, including reissues, designs, trade-marks, labels, and prints.

June 30— 1892..... 43, 544 1893..... 43, 589 1894..... 39, 206 1895..... 41, 014 1896..... 45, 645		June 30— 1897..... 47, 746 1898..... 44, 210 1899..... 40, 320 1900..... 45, 277 1901..... 48, 078
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Applications awaiting action on the part of the Office.

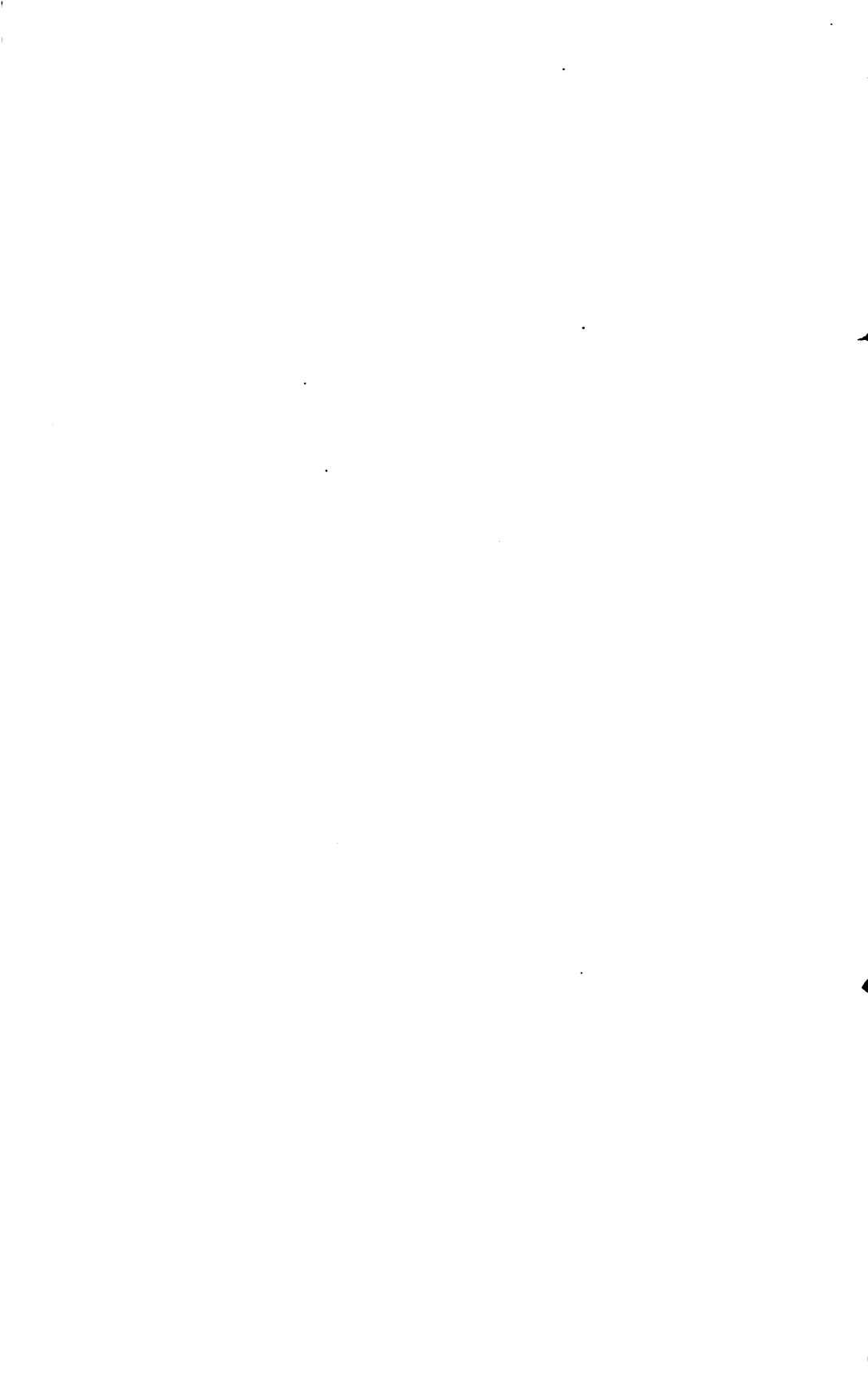
June 30— 1892..... 9, 447 1893..... 8, 283 1894..... 7, 076 1895..... 4, 927 1896..... 8, 943		June 30— 1897..... 12, 241 1898..... 12, 187 1899..... 2, 989 1900..... 3, 564 1901..... 7, 683
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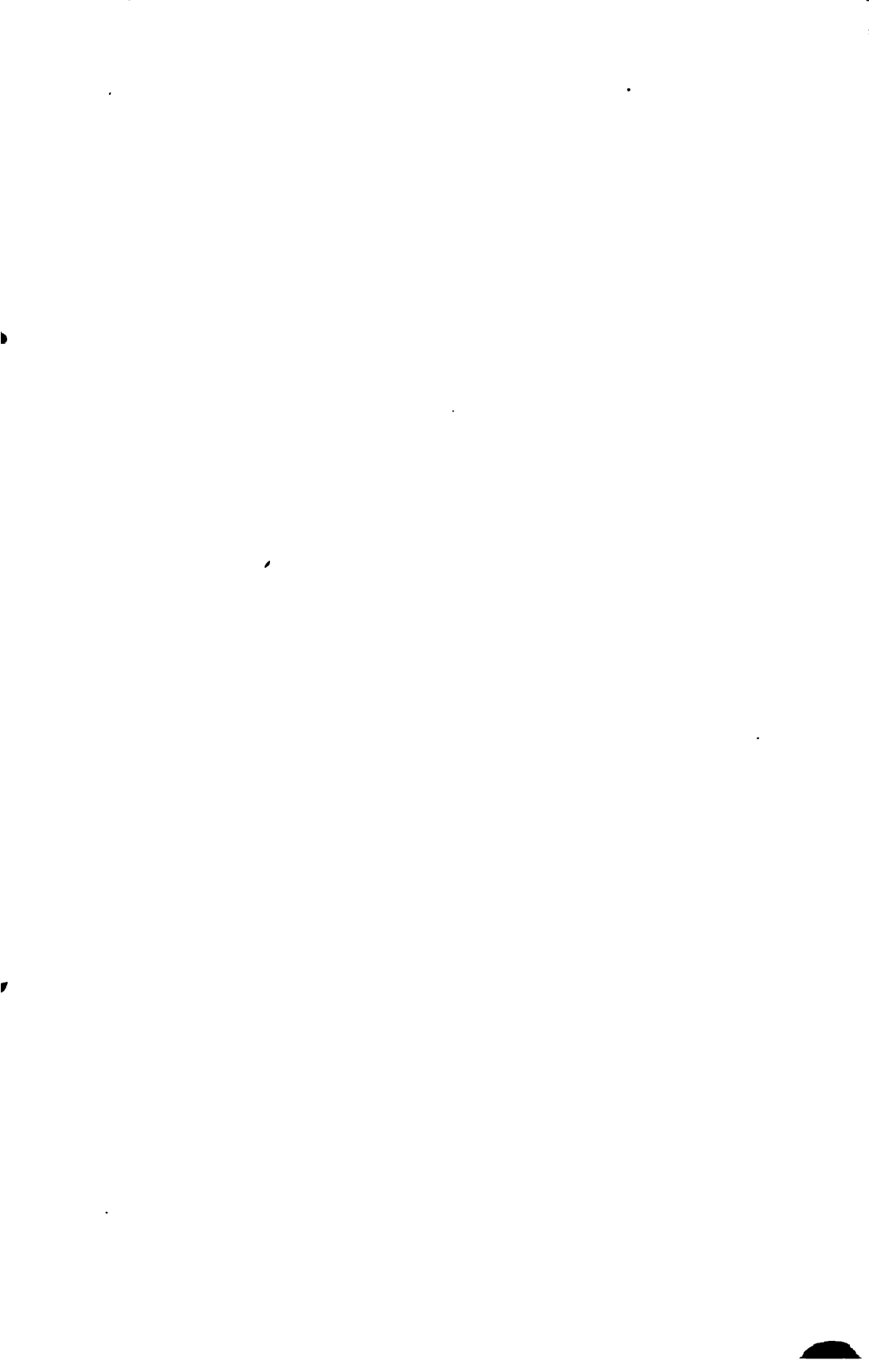


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Applications for letters patent.....	42,082
Applications for design patents.....	2,368
Applications for reissue patents.....	101
Applications for registration of trade-marks.....	2,312
Applications for registration of labels.....	1,036
Applications for registration of prints.....	176
Caveats.....	1,860
Total.....	49,935

Applications awaiting action.

Number of applications awaiting action on the part of the Office on July 1, 1901. 7,683

Applications for patents, including reissues, designs, trade-marks, labels, and prints.

June 30— 1892..... 43,544 1893..... 43,589 1894..... 39,206 1895..... 41,014 1896..... 45,645		June 30— 1897..... 47,746 1898..... 44,210 1899..... 40,320 1900..... 45,277 1901..... 48,078
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Applications awaiting action on the part of the Office.

June 30— 1892..... 9,447 1893..... 8,283 1894..... 7,076 1895..... 4,927 1896..... 8,943		June 30— 1897..... 12,241 1898..... 12,187 1899..... 2,989 1900..... 3,564 1901..... 7,683
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REPORT

OF THE

COMMISSIONER OF PATENTS.

DEPARTMENT OF THE INTERIOR,
 UNITED STATES PATENT OFFICE,
 Washington, D. C., August 19, 1901.

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Applications for registration of labels.....	1, 036
Applications for registration of prints.....	178
Caveats.....	1, 860
Total.....	49, 935

Applications awaiting action.

Number of applications awaiting action on the part of the Office on July 1, 1901. 7, 683

Applications for patents, including reissues, designs, trade-marks, labels, and prints.

June 30—	June 30—
1892..... 43, 544	1897..... 47, 746
1893..... 43, 589	1898..... 44, 210
1894..... 39, 206	1899..... 40, 320
1895..... 41, 014	1900..... 45, 277
1896..... 45, 645	1901..... 48, 078

Applications awaiting action on the part of the Office.

June 30—	June 30—
1892..... 9, 447	1897..... 12, 241
1893..... 8, 283	1898..... 12, 187
1894..... 7, 076	1899..... 2, 989
1895..... 4, 927	1900..... 3, 564
1896..... 8, 943	1901..... 7, 683

Patents granted, and trade-marks, labels, and prints registered.

Letters patent granted (including reissues and designs).....	26,481
Trade-marks registered.....	1,826
Labels registered.....	824
Prints registered.....	124
Total.....	29,255

Patents withheld and patents expired.

Letters patent withheld for nonpayment of final fees.....	4,288
Letters patent expired.....	20,690
Applications allowed awaiting payment of final fees.....	8,189

Expenditures.

	Expended.	Estimated liabilities.	Total.
Salaries.....	\$768,716.70		\$768,716.70
Scientific library.....	1,273.93	\$726.07	2,000.00
Transportation of publications to foreign countries.....			
Postage on foreign matter.....	2,591.00		2,591.00
Stationery.....	12,217.65		12,217.65
Furniture.....	3,963.99		3,963.99
Carpets.....	2,763.66		2,763.66
Ice.....	513.16		513.16
Telephones.....	543.00		543.00
Washing towels.....	100.88		100.88
Refitting attorneys' room.....	2,367.13		2,367.13
Shelving, sash, doors, etc.....	5,439.08		5,439.08
Sundries.....	6,664.33		6,664.33
Law library.....	392.25		392.25
Public use of inventions and defending suits.....	22.45		22.45
Official Gazette, illustrations, paid contractor.....	62,100.00		62,100.00
Photolithographing, paid contractor.....	104,715.47		104,715.47
Blue-print work, paid contractor.....	4,284.07		4,284.07
Printing and binding:			
Paid Public Printer for producing the Official Gazette and indexes out of the appropriation for 1901.....	67,791.82	5,287.00	73,058.32
Printing specifications.....	217,639.97		217,639.97
Miscellaneous printing and binding.....	18,148.42		18,148.42
International protection of industrial property.....	728.60		728.60
Total.....	1,282,977.06	5,993.07	1,288,970.13

Receipts and expenditures.

Receipts from all sources.....	\$1,408,877.67
Expenditures (including total in all appropriations).....	1,288,970.13
Surplus.....	119,907.54

Comparative statement.

June 30—	Receipts.	Expenditures.	June 30—	Receipts.	Expenditures.
1892.....	\$1,268,727.35	\$1,114,134.23	1897.....	\$1,843,779.44	\$1,086,473.16
1893.....	1,288,809.07	1,111,444.22	1898.....	1,253,948.44	1,092,449.83
1894.....	1,183,623.18	1,063,962.38	1899.....	1,209,554.88	1,148,663.48
1895.....	1,196,567.07	1,038,166.08	1900.....	1,358,228.35	1,247,827.58
1896.....	1,307,090.30	1,097,368.85	1901.....	1,408,877.67	1,288,970.13

Summarizing these tables, there were received in the last fiscal year 42,082 applications for mechanical patents, 2,368 applications for designs, 101 applications for reissues, 1,860 caveats, 2,312 applications for trade-marks, 1,036 applications for labels, and 176 applications for prints. There were 26,481 patents granted, including reissues and designs; 1,826 trade-marks, 824 labels, and 124 prints were registered.

The number of patents that expired was 20,690. The number of allowed applications which were by operation of law forfeited for non-payment of the final fees was 4,288. The total receipts of the office were \$1,408,877.67; the total expenditures were \$1,288,970.13, and the surplus of receipts over expenditures, being the amount turned into the Treasury, was \$119,907.54.

THE WORK OF THE OFFICE.

The volume of work of this Bureau has reached unprecedented figures. It indicates by the regular character of its increase that it is likely to continue, and may be taken as representing the general prosperity and growth of the country. This large volume of work has only been kept in hand by the greatest effort of the examining divisions and the clerical force of the office. A considerable portion of the examining divisions has been working under a rule requiring attendance until 5 o'clock, and it is very evident that the work can only be successfully kept up with reasonable promptness by an increase of office force, if the present volume of business continues.

One of the greatest difficulties which this Office has to contend with is the fact that the requirements of training in the examining divisions are so great and the opportunities afforded to our examiners to engage in business outside of the Office are so frequent that this Office is continually losing numbers of its best equipped men, who leave it for exterior employment. New men starting in this work are comparatively inefficient until after a considerable period of training, and it would seem to be self-evident that this Office should retain its highly trained examiners by giving them such increase of salary as should make their continuance here more desirable to themselves.

An increase in the clerical force is also required, since the clerical work has increased in equal ratio with the work of the examining divisions. In the clerical force the salary paid to stenographers and typewriters ranges from \$720 to \$900, which is less than the amount paid to this class of clerks in other bureaus, so that we are at the disadvantage of having some of the best of our clerks transferred to other departments where their services are better compensated. This Bureau should be able to retain for its own purposes the services of these people by its ability to pay them as much as is paid for the same services in other bureaus of the Government.

In view of the fact that the surplus of receipts over expenditures for the fiscal year just ended reaches a total of \$119,907.54, it seems that a part of this surplus could be well employed in bettering the facilities which this Office affords to inventors.

ROOM.

The necessity for more room has been frequently urged in the reports of my predecessors, and it is an ever present necessity. Lack of room hampers all of our operations and causes waste of time and the destruction of valuable documents, for which there is no remedy under present conditions. There is no doubt in my mind but that if more space were accorded to this Office it would take the place, to some extent, of an increased force in more economical methods of work.

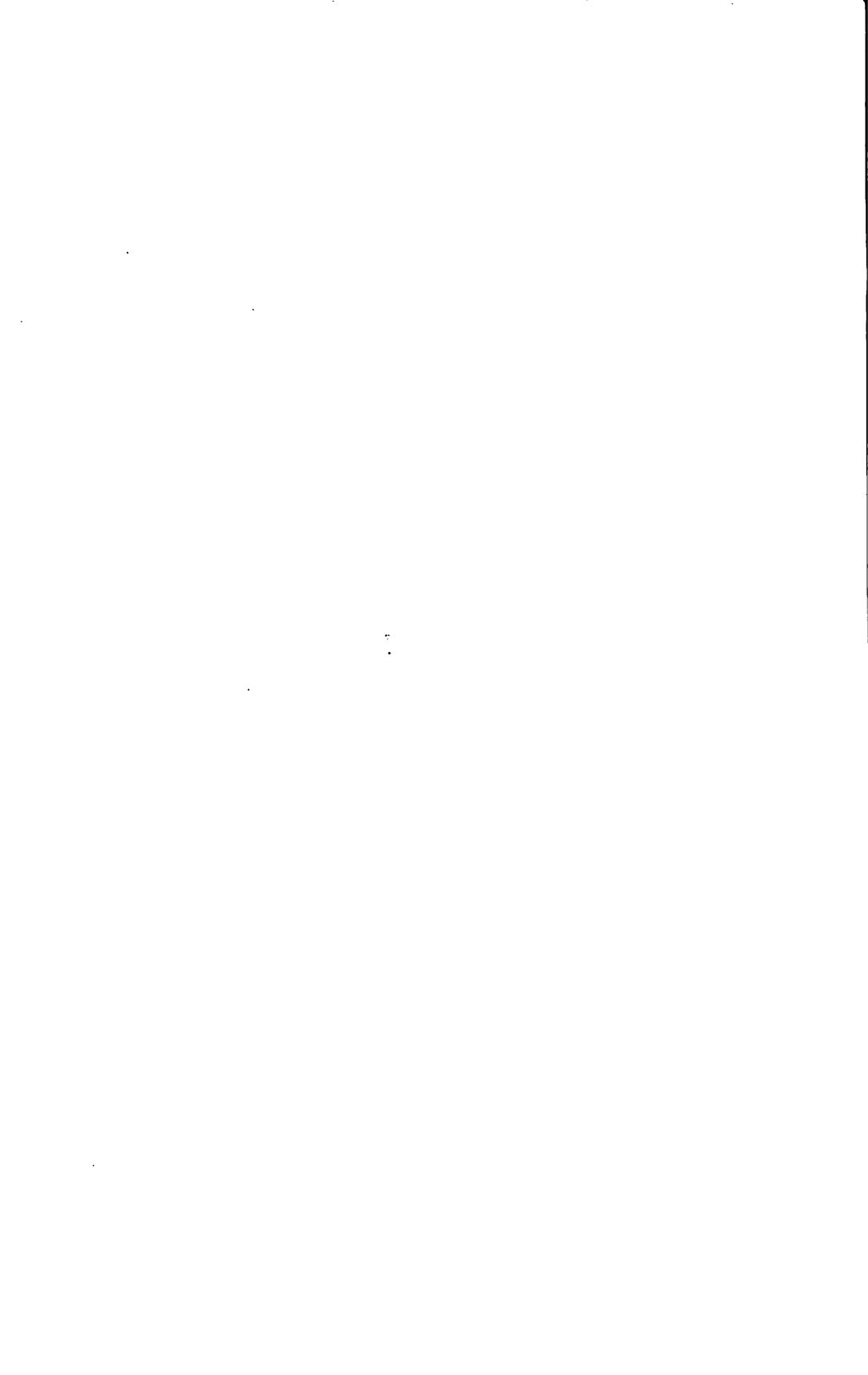
SCIENTIFIC LIBRARY.

This library, consisting of nearly 75,000 volumes (and of the greatest value to the Government and to inventors and attorneys), should be provided with steel stacks in addition to those already provided, so that it may be rendered more safe from fire. It is thought that \$2,500 would be sufficient to complete this installation of steel stacks. The appropriation for the purchase of books is inadequate and should be increased.

Respectfully submitted.

F. I. ALLEN,
Commissioner.

The SECRETARY OF THE INTERIOR.





U. S. PENSION OFFICE (SOUTH FRONT), WASHINGTON, D. C.

R E P O R T
OF
THE COMMISSIONER OF PENSIONS.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 10, 1901.

SIR: In submitting my report of the operations of the Bureau of Pensions for the fiscal year ended June 30, 1901, I have the honor to invite your attention to the several tables accompanying this report, which are numbered and arranged in the order followed in the report for the fiscal year 1900, thus facilitating a comparison of the work of the Bureau with that of former years.

In the report a brief reference to the leading features presented in the different tables will be made; and, as far as possible, the results attained during the past year will be so tabulated as to show what progress has been made in disposing of the arrears of work on hand at the close of each fiscal year since 1897.

TABLE No. 1

is a statement showing the number of pensions allowed, increased, restored, renewed, and discontinued during the year, with their annual value, as well as the number of pensioners of all classes on the roll at the close of the year, and the annual value of the pension roll.

At the close of the fiscal year 1900 the number of pensioners on the rolls was 993,529. During the fiscal year of 1901 there were added to the rolls the names of 44,225 new pensioners; the number renewed and restored to the rolls was 3,567, making a total addition to the roll of 47,792 names, and the total number of pensioners on the rolls during the year 1,041,321. The number of pensioners dropped from the rolls during the same period was 43,586, leaving the total number June 30, 1901, at 997,735, being a net increase of 4,206, as compared with the number of pensioners on the rolls at the close of the fiscal year 1900.

This constitutes the "high-water mark" in the history of the Bureau, the number of pensioners on the rolls June 30, 1901, being over 4,000 in excess of the number reached in any previous year.

The annual value of the roll on June 30, 1900, was \$131,534,544, and on June 30, 1901, it had increased to \$131,568,216. The increase in the annual value of the roll was not very marked, but this may be accounted for by the fact that the death rate of the high-grade pensioners is proportionately greater than that of those receiving smaller rates of pension.

The annual value of each pension was decreased from \$132.39 to \$131.87, and this decrease has undoubtedly resulted from the same causes, viz, the death of pensioners who were receiving higher rates of pensions; also, by reason of the reduced number of general-law pensioners. The average annual value of pensions under the general law has increased from \$167.53 to \$168.67, and the average annual value of pensions under the act of June 27, 1890, has decreased from \$108.28 to \$108.09. This reduction is natural, right, and proper, as a result of the great number of widow pensioners placed upon the rolls and the increased number of invalid pensioners who heretofore had no ratable disability.

The average annual value of the Spanish-war pensions has dropped from \$196.53 in 1899 and \$169.10 in 1900 to \$153.50 in 1901. The first allowances to this class of pensioners were made to those who were suffering from pronounced disabilities of a severe nature, while later on pensions were granted to those whose disabilities were of a less serious character, many of them being accorded the benefit of the doubt as to the existence of a pensionable disability, the same being on account of sickness rather than permanent disability.

The decrease is also largely due to the fact that the physical condition of most of those who served in that war is constantly improving with favorable surroundings, and it is fair to say that many of these pensioners will be ordered for reexamination at stated periods, and when the disability shall have ceased to exist in a pensionable degree the pension must stop according to law.

It will be noted that the average annual value of pensions of the war with Spain is still largely in excess of the average annual value of the pensions on account of the war of the rebellion.

The total number of pensioners, classified by different wars and laws, as compared with former years since 1897, is as follows:

	1901.	1900.	1899.	1898.	1897.
War, Revolutionary:					
Widows	4	4	4	5	7
Daughters	5	7	7	7	9
War, 1812:					
Survivors	1	1	1	3	7
Widows	1,527	1,742	1,996	2,407	2,810
Indian wars:					
Survivors	1,086	1,370	1,656	2,019	2,373
Widows	3,479	3,739	3,899	4,067	4,286
Mexican war:					
Survivors	7,568	8,352	9,204	10,012	10,992
Widows	8,109	8,151	8,175	8,143	8,072

	1901.	1900.	1899.	1898.	1897.
Service after Mar. 4, 1861:					
General laws—					
Army invalids.....	238, 186	805, 989	316, 884	327, 080	686, 299
Army widows.....	86, 504	88, 463	90, 597	92, 545	94, 602
Navy invalids.....	4, 489	4, 622	4, 721	4, 833	4, 788
Navy widows.....	2, 298	2, 314	2, 293	2, 300	2, 375
Army nurses.....	650	646	653	655	668
Act June 27, 1890:					
Army invalids.....	422, 481	415, 265	405, 987	399, 366	378, 609
Army widows.....	188, 490	129, 412	124, 127	119, 785	110, 593
Navy invalids.....	15, 633	15, 392	14, 925	14, 543	13, 881
Navy widows.....	6, 621	6, 314	6, 189	5, 944	5, 766
War with Spain:					
General laws—					
Army invalids.....	3, 344	822	117		
Army widows.....	1, 961	845	165		
Navy invalids.....	211	60	6		
Navy widows.....	68	28	11		
Total.....	997, 735	993, 529	991, 519	993, 714	976, 014

The pensioners on the rolls may be further classified as follows, viz:

	Survivors.	Invalid.	Widows.
On account of old wars prior to 1861.....	8, 655		18, 124
On account of general laws, disability of service origin, after March 4, 1861 (mostly civil war).....		297, 675	88, 802
On account of act of June 27, 1890 (disability not due to service— civil war).....		438, 114	145, 111
Army nurses.....		650	
On account of war with Spain.....		3, 555	2, 049
Total.....	8, 655	739, 994	249, 086

Under the general head of "widows" in the tables of this report are included minors and dependent parents and sisters and brothers. It should be stated, however, that when a widow is pensioned in her own right, and also on account of minor children of the soldier, only one pensioner is counted, as all the pension is paid to the widow.

It will be noted that there were 44,225 claims allowed during the year for original pension, and 3,567 for renewal and restoration. During the fiscal year of 1900 the number of original allowances was 40,645, and the number of renewals and restorations was 4,699, showing a material increase in the number of original claims allowed during the fiscal year 1901.

As predicted in my last annual report there has been a decrease in the number of general-law pensioners, and a corresponding increase in the number of pensioners under the act of June 27, 1890. This is caused by the difficulty in obtaining the necessary evidence to establish service origin of disabilities, owing to the lapse of time since the civil war; and it is believed that the decrease of the number of general-law pensioners and the increase of the number of pensioners under the act of June 27, 1890, will continue in a more marked degree in the future. This is the inevitable result of the progress of time which will render it more and more difficult to establish claims under the general law

based upon obscure disabilities of service origin and their alleged sequelæ.

The following tabulated statements show the changes in the average annual values of pensions for the past eight years:

Year.	Annual value of roll.	Average value of original payments.	Original cases allowed.	Total first payments, all classes.	Total disbursements for pensions.
1894.....	\$130,120,863	\$229.48	39,085	\$11,917,359	\$139,804,461.05
1895.....	130,048,365	210.12	39,185	11,451,133	139,807,337.30
1896.....	129,485,587	211.30	40,374	11,289,278	138,214,761.94
1897.....	129,795,428	181.77	50,101	12,575,601	139,949,717.35
1898.....	130,968,465	206.36	52,648	15,542,914	144,651,879.80
1899.....	131,617,961	177.54	37,077	9,247,968	138,356,062.96
1900.....	131,534,544	168.05	40,645	9,823,525	138,462,130.65
1901.....	131,568,216	159.01	44,225	9,934,764	138,581,483.84

Year.	Average annual value of—			
	Each pension.	Each general law pension.	Each act of June 27, 1890, pension.	Each Spanish war pension.
1894.....	\$134.20	\$155.08	\$115.12	.....
1895.....	133.99	158.39	112.15	.....
1896.....	133.39	161.05	109.55	.....
1897.....	133.17	162.04	109.25	.....
1898.....	131.79	163.21	108.11	.....
1899.....	132.74	165.70	108.99	\$196.58
1900.....	132.39	167.58	108.28	169.10
1901.....	131.87	168.67	108.09	153.50

TABLE No. 2

shows the number of pensioners of the various classes added to and dropped from the rolls during the year, with the cause and the number of each class remaining on the rolls June 30, 1901. This table constitutes the "balance sheet" between the Bureau and the eighteen pension agencies, and takes account of all the changes on the rolls of the agencies during the year.

For the purpose of preserving the proper balance between the additions and losses to the rolls, a new item has been added to this table which takes account of the number of pensioners apparently gained by reissues, additional, and supplemental, and the resulting loss to the rolls by stopping the pension under one law for the purpose of placing the name of the same pensioner on the roll at a higher rate under another law.

The number of pensioners dropped from the rolls during the year by reason of death, remarriage of widows, minors reaching the age of 16 years, failure to claim pension for more than three years, and for all other causes, is as follows, as compared with former years:

Year.	By death.	Remarriage.	Minors.	Failure to claim.	Other causes.	Total.
1901	38,153	853	1,582	1,538	1,460	48,586
1900	35,809	909	1,402	1,728	3,486	43,334
1899	34,345	983	1,631	2,029	4,198	43,186
1898	33,691	1,369	2,124	3,031	6,436	46,651
1897	31,960	1,074	1,845	2,683	3,560	41,122
1896	29,393	1,141	1,684	2,552	9,323	44,098
1895	27,816	1,204	1,144	2,567	9,680	42,411

The footnote of this table shows that the number of minor children on whose account pension is paid is 49,394, a reduction of 2,601 as compared with last year. This decrease is caused by the large number of minor children who attained the age of sixteen years during the year as shown in notes "1," "2," and "3."

The following is a comparative statement of the number of pensioners, by wars, on the rolls at the close of the fiscal years 1898, 1899, 1900, and 1901, and showing increases or decreases as the case may be:

Wars.	1898.	1899.	1900.	1901.
War of Revolution.....	12	11	11	9
War of 1812.....	2,410	1,999	1,743	1,528
Indian wars, 1832-1842.....	6,086	5,555	5,109	4,565
Mexican war.....	18,155	17,379	16,503	15,677
Civil-war invalids.....	745,822	742,467	741,905	735,789
Civil-war widows.....	221,229	223,809	226,503	234,563
Spanish-war invalids.....	.....	123	882	3,555
Spanish-war widows.....	.....	176	873	2,049
Total.....	993,714	991,519	993,529	997,735
Changes	+27,700	-2,195	+2,010	+4,206

Changes in number of pensioners in each class from 1898 to 1901.

	Decrease.	Increase.
War of Revolution.....	3	.....
War of 1812.....	882	.....
Indian wars, 1832-1842.....	1,521	.....
Mexican war.....	2,478	.....
Civil-war invalids.....	10,033	.....
Civil-war widows.....	.....	18,334
Spanish war.....	.....	5,604
Total.....	14,917	18,938

Net Increase, 4,021.

Prior to this year the "high-water mark" in the number of pensioners was reached at the close of the fiscal year 1898, when there were 993,714 names on the pension rolls. On June 30, 1901, the number of pensioners was 997,735, or 4,021 in excess of any previous year.

As an explanation or analysis of this increase it may be stated—

First. That there has been a net decrease in the number of pensioners for the old wars, for service prior to March 4, 1861, of 4,884.

Second. There has been a net increase for those pensioned on account of the war of the rebellion of 3,301.

Third. There has been an increase on account of the war with Spain of 5,604.

Fourth. The number of pensions granted to widows under the act of June 27, 1890, viz, 16,610, is nearly 4,500 in excess of those granted the previous year, the result of the act of May 9, 1900, amendatory of the former law.

TABLE NO. 3

is a statement of the number and amount of first payments on each class of certificates made during the year by pension agents to each class of pensioners in comparison with similar payments made during the fiscal year 1900. The total amount paid to pensioners as first payments upon the allowance of their claims was \$9,934,763.54, or \$106,238.47 more than the first payments during the year 1900.

This amount constitutes what may be termed "arrears" of pension, being the payment for the period which had elapsed between the filing of the claim or the death of the soldier, as the case may be, and the date of the quarterly payment preceding the allowance of the claim.

The average value of first payments was reduced from \$168.05 in 1900 to \$159.01 in 1901. This is a natural decrease, and is brought about by the progress which has been made by the Bureau in the adjudication of claims which has brought the work nearer up to date and has thus considerably shortened the "arrears" period. The decrease would have been still greater but for the fact that a considerable number of what are known as "Old minors' claims" were allowed during the year, under your instructions of May 26, 1900, and many of them carried large arrearages.

In 675 claims allowed during the year there was paid on the original allowance the sum of \$1,010,699.20, or an average of nearly \$1,500 in each case.

At the close of the fiscal year there remained in the hands of the different pension agents 10,109 certificates upon which no payments had been made, involving first payments amounting to \$878,170.26. These certificates were issued so nearly the close of the year that the pension agents were unable to obtain vouchers from the pensioners in time to make the payments before the close of the year, and the above amount will therefore be paid out in said cases during the present fiscal year, although the allowance of the claims was properly credited to the fiscal year ended June 30, 1901, and if they could have been paid prior to June 30, 1901, the amount would have been charged to the appropriation for that year.

The fees paid to attorneys during the year out of the first payments to pensioners amounted to \$591,245.22, being an increase of \$73,868.90

over the previous year. This increase was occasioned by the allowance of Spanish war claims, in nearly all of which the attorneys had secured an agreement from the claimant for a \$25 fee, although most of the claims required very little service on the part of the attorney aside from the preparation and filing of the declaration. The Commissioner is allowed no discretion in fixing the amount of the fee to be paid the attorney for his services in this class of cases, the matter being regulated by law.

TABLE NO. 4

is a statement showing the appropriations for pensions and the disbursements on account thereof for the fiscal year ended June 30, 1901, and the unexpended balances at the close of the year:

Appropriations for pensions.....	\$144,000,000.00
Amount paid for pensions.....	138,531,483.84
Appropriation for medical examinations.....	700,000.00
Paid out for three-quarters of year.....	661,654.58
Appropriations for salaries and clerk hire, agencies.....	502,000.00
Paid out for salaries and clerk hire, agencies.....	484,520.21
Appropriations for rents, fuel, lights, and contingencies, agencies..	43,230.00
Paid out for rents, fuel, lights, and contingencies, agencies.....	41,372.73

It will be noted that the disbursements for navy pensions were \$3,787,693.03. The act making appropriations for the payment of invalid and other pensions of the United States provides that the appropriations for navy pensions shall be paid from the income of the navy pension fund so far as the same shall be sufficient for that purpose. The amount paid from the navy pension fund for the year was \$357,966.09, or about 9 per cent of the total amount required for the payment of the navy pensions.

The available balance on June 30, 1901, from the amount appropriated for the payment of pensions was \$5,471,985.17.

It will be noted that nearly the entire amount appropriated for the payment of examining surgeons had been expended during the three-quarters of the fiscal year, leaving only a small balance available toward payments on account of medical examinations for the months of April, May, and June, 1901.

The large number of orders for medical examinations issued during the year is attributable to the demands of claimants for increase over present ratings. At least 100,000 of the medical examinations held were unproductive, in that they failed to show an increase of disability warranting a higher rating than the claimants are receiving; but under the present system and practice, just as soon as the application for increase is adjudicated—allowed or rejected—or within thirty days, as a rule, another application is filed through the efforts of the energetic and enterprising attorney, and the case again takes its place in the pending files for another medical examination and another adjudica-

tion. Many cases are found in which from ten to twenty applications for increase have been filed and as many medical examinations held, and yet no increase of disability has been shown since the date of the original adjudication of the claim.

Under the established system practically no limit is imposed upon the filing of applications for increase, and consequently no limit to the orders for medical examinations can be established.

TABLE No. 5

shows the amount disbursed by each of the 18 United States pension agencies during the fiscal year, as shown by their accounts current.

This statement embraces all the payments made at the different agencies, and shows in separate columns the amounts paid for pensions, for fees for examining surgeons, for salaries of pension agents, for clerk hire, rents, fuel, lights, and contingent expenses at the agencies, the entire amount being \$139,582,231.98, an increase over the previous year of \$200,709.25.

It may be noted that the amounts disbursed by the different agencies range from \$2,743,320 at Concord, N. H., to \$16,132,946 at Topeka, Kans.

TABLE No. 6

shows the amounts paid during the year at the different pension agencies on account of pensions under the general law. The amount was \$67,867,233.84, being a decrease of \$1,790,252.82 from the amount paid under this head during the previous fiscal year. The steady decrease in the number of pensioners under the general law will cause a corresponding decrease in the amount of payments represented in this table.

TABLE No. 7

is a statement of amounts paid by the different pension agents during the fiscal year 1901 for pensions on account of the war with Spain.

The amount paid to these pensioners was \$1,175,225.76, which is an increase over last year's payments of \$842,320.51. The payments to the persons embraced in this table will materially increase for some years to come.

TABLE No. 8

shows the amount paid during the year for pensions under the act of June 27, 1890, as amended by the act of May 9, 1900.

The payment to this class of pensioners was \$66,973,481.15, being an increase of \$1,207,401.80 as compared with the amount paid during the fiscal year 1900.

The number of pensioners embraced in this table will show a steady increase in about the same proportion as the number of pensioners

under the general law will decrease, for the reason that title to pension under the act of June 27, 1890, is not based upon disability of service origin but upon present disability, regardless of the time of its development.

TABLE NO. 9

shows the amount of payments made during the year to the following classes of pensioners:

	Survivors.	Widows.	Total.
War of 1812.....	\$96.00	\$210,760.04	\$210,856.04
Indian wars 1832-1842.....	111,973.91	351,016.59	462,990.50
War with Mexico.....	921,052.18	794,320.27	1,715,372.45

As compared with previous years the decrease in the number of pensioners embraced in this table and the amounts paid to them is marked, and, as all these beneficiaries have reached a ripe old age, it is but reasonable to predict that their numbers will continue to decrease very rapidly. To show, however, that the survivors of these wars and their widows have not been forgotten in the distribution of the bounty of the Government, it will be seen that the survivors of the war of 1812 and their widows have received in the last thirty years the goodly sum of \$44,841,647.93; those whose pensions have been based on service in the war with Mexico have been paid a total of \$30,201,186.69, while the survivors of the Indian wars and their widows have received \$5,402,054.55.

The total payments to the beneficiaries included in this table for the fiscal year 1901 was \$2,389,218.99.

TABLE NO. 10

is a classified statement of the number of pensioners on the rolls of each agency as compared with the number on the rolls June 30, 1900, and giving the losses and gains in each class.

NET INCREASES.

Army nurses.....	4
War with Spain:	
Army invalids.....	2,522
Army widows.....	1,136
Navy invalids.....	151
Navy widows.....	40
	3,849
Act of June 27, 1890 (civil war):	
Army invalids.....	7,216
Army widows.....	9,078
Navy invalids.....	241
Navy widows.....	307
	16,842
Total.....	20,695

NET DECREASES.

General law:	
Army invalids	12,794
Army widows	1,961
Navy invalids	133
Navy widows	18
	————— 14,904
War of 1812, widows	215
War with Mexico:	
Survivors	784
Widows	42
	————— 826
Indian wars:	
Survivors	284
Widows	260
	————— 544
Total	16,489

Showing a net increase in the number of pensioners of 4,206.

TABLE NO. 11

shows the disbursements for pensions, fees of examining surgeons, cost of disbursement, salaries, and other expenses of the Pension Bureau and its agencies, and the number of pensioners on the rolls at the close of each fiscal year since July 1, 1865.

The disbursements since July 1, 1865, have been as follows, viz:

For army pensions	\$2,608,004,258.63
For navy pensions	58,900,330.60
	—————
Total for pensions	2,666,904,589.23
For fees paid examining surgeons	17,375,192.13
For cost of disbursing	13,140,883.73
For salaries in Bureau	48,696,646.50
For other expenses	8,610,616.60
	—————
	2,754,727,928.19

Amount paid for army and navy pensions from July 1, 1790, to June 30, 1865	96,445,444.23
From July 1, 1865, to June 30, 1901	2,666,904,589.23
	—————

Total for pensions

2,763,350,033.46

The last column in this table gives the number of pensioners on the rolls at the close of each fiscal year since the close of the war of the rebellion.

No exhibit contained in this report speaks so eloquently of the liberality of the Government in the distribution of its bounty to its defenders and those who are dependent upon them, as this table does, and the figures given therein are deserving of careful study.

TABLE NO. 12

is a statement showing the number of claims for original pension filed and allowed each year since July 1, 1861.

The number of original applications filed during the fiscal year 1901 was 58,373. These applications were filed by 45,860 claimants, many of them having availed themselves of the privilege accorded them by law of filing and prosecuting separate claims under different laws.

The number of original claims allowed during the year was 44,225, divided among the following classes, viz:

	Invalids.	Widows.	Total.
For disabilities incurred in service (war of rebellion)	658	8,067	8,720
Act of June 27, 1890.....	19,319	16,610	35,929
War with Spain.....	2,796	1,240	4,035
Army nurses.....	25		25
War of 1812.....		8	8
Indian wars (1832-1842).....	17	132	149
Mexican war.....	115	352	467
Old wars (prior to 1861).....		7	7
Total	22,814	21,411	44,225

¹Survivors.

It thus appears that the number of new applicants for pension during the fiscal year 1901 was but 1,635 in excess of the number of new pensioners placed upon the rolls during the same period.

In my annual report for the year 1900 I predicted that during the fiscal year 1901 "filing of new claims will be largely in excess of those filed in any year since 1894, owing to the enactment of new legislation by the present Congress." An examination of said item in this table shows that my prediction was fully verified.

TABLE NO. 13

is a statement of the number of pensioners in each State and Territory of the United States, in each insular possession, and in each foreign country on the rolls June 30, 1901, and the amount paid for pensions during the fiscal year 1901 in each State and Territory, in each insular possession, and in each foreign country. The following summary shows the residence of and payments to pensioners during the year:

	Number.	Amount.
Pensioners residing in States and Territories, and payments to them during the year	998,116	\$137,758,685.20
Pensioners residing in insular possessions and payments to them during the year.....	72	10,312.89
Pensioners residing in foreign countries and payments to them during the year	4,547	641,161.65
Total	997,735	138,405,159.74
Payments by Treasury settlements		126,324.10
Total payments on account of army and navy pensions.....		138,531,483.84

There has been an increase of 90 in the number of pensioners residing in foreign countries, and the increase in the amount paid to them was \$10,927.35 over last year.

At the close of the fiscal year 1900, 69 pensioners were residents of our insular possessions, and they were counted with those residing in foreign countries. In this table the 72 pensioners residing in our insular possessions are counted under their proper head.

TABLE NO. 14

shows, by classes, the different monthly rates paid to pensioners under the general law, and the number at each rate on the rolls June 30, 1901.

It would appear from this table that there are 17 invalid pensioners rated at less than \$6 per month, which was made the minimum rate of pension by the act of March 2, 1895. The issue of said certificates at lesser rates than \$6 per month is fully explained in the footnote of the table.

Invalid pensioners receiving a pension in excess of \$100 per month, and widows pensioned at more than \$30 per month, are pensioners by special acts of Congress, and the irregular rates in the table below \$100 per month arise from combination of rates for disabilities as of different ranks in the service, and also by the addition of service pension in the Navy to the regular pension for disability.

TABLE NO. 14A

shows, by classes, the different monthly rates paid to pensioners under the act of June 27, 1890, and the number at each rate on the rolls June 30, 1901.

It will be remembered that the maximum rate to invalids under said act is \$12 per month and to widows \$8 per month. The invalid cases in this table at rates in excess of \$12 per month and the widows' rates in excess of \$8 per month are fully explained in the footnote.

The number of invalid pensioners receiving the maximum rate of \$12 per month is still largely in excess of the number pensioned at any of the lesser rates. This rate is provided for disabilities which exist in a degree entirely incapacitating the pensioner from earning a support by manual labor and corresponds to the \$30 rate under the general law, at which rate there are only 15,206 invalid pensioners on the rolls.

A comparison of this table with that of the previous year shows a decrease of 3,428 in the number of \$6 pensioners, while the number of \$8 pensioners has increased from 133,899 in 1900 to 138,293 in 1901, and there has been an increase of 6,596 in the number of \$10 pensioners. There has also been a marked increase in the number of pensioners embraced in this table who are receiving more than \$12 per month.

TABLE NO. 14B

is a statement showing, by classes, the different monthly rates of pension paid on account of the war of 1812, Indian wars (1832-1842),

war with Mexico, war with Spain, and the army nurses employed during the war of the rebellion.

Attention is invited to the footnote of this table, which is explanatory of the rates in excess of those fixed by the acts under which the pensions were originally granted.

The only surviving pensioned soldier of the war of 1812 is Hiram Cronk, of Ava, Oneida County, N. Y., who is 101 years of age. The roll, however, contains the names of 1,527 widows of soldiers of that war, being a reduction of 215 since last year.

There are on the rolls the names of 1,086 survivors and 3,479 widows on account of Indian wars (1832-1842), and of 7,568 survivors and 8,109 widows on account of the war with Mexico.

This is a reduction from last year of 284 in the number of survivors and 260 in the number of widows on account of the Indian wars, and of 784 survivors and 42 widows on account of service in the war with Mexico.

The table shows an increase over last year in the number of pensioners on account of the war with Spain of 2,673 invalids and 1,176 widows, and the number of army nurses who are drawing pensions has increased from 646 to 650.

TABLE NO. 15

gives the names, ages, and places of residence of the surviving widows and daughters of Revolutionary soldiers on the pension rolls June 30, 1901.

During the fiscal year 1901 the following deaths occurred among this class of pensioners, viz:

Eliza Sandford, pensioned as the daughter of William Sandford, and Ann M. Slaughter, pensioned as the daughter of Philip Slaughter.

There remain on the rolls the names of four widows and five daughters of Revolutionary soldiers.

TABLE NO. 16

is a report of the pension certificates issued during the fiscal year ended June 30, 1901.

The following summaries will show the issues by classes, viz:

	Invalid.	Widow.	Total.
Original:			
Old wars	22	494	516
War of rebellion—			
General laws	653	3,067	3,720
Act of 1890	19,819	16,610	35,929
Army nurses	25		25
War with Spain	2,796	1,240	4,086
Total	22,814	21,411	44,225

Restoration and renewals:	
Old wars.....	£
War of rebellion—	
General laws.....	1, 288
Act of 1890.....	2, 262
War with Spain.....	12
Total.....	8, 567
Total original and restoration.....	47, 792
Straight increases.....	35, 989
Reissues.....	2, 246
Restorations, renewals, reissues, and additional to change class.....	6, 922
Supplementals.....	249
Duplicates.....	2, 678
Accrued.....	18, 842
Grand total.....	109, 668

The total number of certificates issued during the past eight years was as follows, viz:

1894.....	80, 213
1895.....	96, 337
1896.....	90, 640
1897.....	94, 454
1898.....	98, 574
1899.....	89, 054
1900.....	105, 591
1901.....	109, 668

TABLE No. 17

is a statement of the work of the mail division for the fiscal year 1901. This division has charge of the receipt and distribution of all mail coming to the Bureau and of the dispatch of the mail going out of the Bureau; also of the mailing of blank applications and copies of the laws and regulations to applicants.

The report is in detail and shows that 5,437,062 pieces of mail were handled in the division during the year, which is a fair indication of the magnitude of the work performed by the Bureau.

TABLE No. 18

shows the work of the army and navy survivors' section, recently transferred to and now a part of the record division.

New rules have been promulgated regulating the practice of furnishing names and post-office addresses of comrades, which it is believed will render this service more beneficial to the Bureau and to claimants.

TABLE No. 19,

with accompanying exhibits, shows the total number of claims pending before the Bureau June 30, 1901.

At the close of the fiscal year a careful inventory was made of the pending files, the result of which appears in this table.

It was found that there were pending 403,569 claims of all classes, including 24,206 claims for accrued pension due deceased pensioners and 33,532 claims arising out of service in the war with Spain and the insurrection in the Philippine Islands. Of the number of pending claims 228,534 were filed by persons who have heretofore been granted a pension and who are now seeking an additional allowance. The following table shows the condition of the pending files for the past five years, viz:

Number of claims pending June 30—

1897.....	578,099
1898.....	635,059
1899.....	477,239
1900.....	437,194
1901.....	403,569

A large number of these pending claims are duplicate claims, i. e., two or more claims by the same claimant under different laws, and when one of the claims is favorably adjudicated the claim filed by the claimant under another law, or the claim for accrued pension, as the case may be, is generally adjudicated at the same time.

Included in the foregoing are 41,399 claims for "new disabilities." These are claims in which a pension has been granted the soldier or sailor for disability or disabilities of service origin, and in later years other disabilities have developed which the claimants think had their origin in the service and for which an additional pension is claimed. These claims are mostly based upon obscure disabilities that have come on since the war, and claimants find it almost impossible to furnish competent evidence connecting the disabilities with the military service. When a prima facie case, however, is made out in this class of cases, the claimant is usually accorded the benefit of a special examination before the claim is finally adjudicated.

It is also found that there are but few claims in the Bureau that can be termed "original" (those in which no pension has ever been allowed) which have been on file more than a few months that have not received action looking to their adjudication. There are many claims under the general law that are pending now and have been for years which have been rejected from one to numerous times each because of no title on account of disability incurred in service and line of duty, and many of these claims are based upon a service of less than ninety days. There are comparatively few claims in the pending files for original pension for disability incurred in the service (general law) in which a pension has not already been granted under the act of June 27, 1890, and many of these, having been granted the maximum rate under that act, are now claimants for a higher rate under the general law for disabilities which they allege as of service origin.

Both systems of pensioning—general law and act of June 27, 1890,

as amended by the act of May 9, 1900—are subjected by the law to well-defined conditions and restrictions, and it would be strange indeed if all that apply should be pensioned, and yet after forty years the results show that comparatively a small percentage of claimants fail to establish title. If they fail in securing pension under the general law for disability incurred in service, they are afforded relief under the act of June 27, 1890, and amendments, for present disabilities not of service origin.

There are now on the pension rolls the names of 735,789 invalid pensioners, exclusive of those based on service in the war with Spain, and nearly all of these are pensioners on account of the war of the rebellion.

According to the mortuary tables and estimates prepared in the War Department, there should now be living 965,313 survivors of the war of the rebellion (excluding deserters), indicating that there are over 200,000 survivors of that war who have never been pensioned, only about 25 per cent of whom have filed claims for pension, and probably many never will apply unless other than a disability pension shall be offered, for the reason that they do not like to make the necessary oath that they are incapacitated by diseases of a permanent character to an extent as to disqualify them from earning a living, and neither of the two systems of pensioning grants pensions to survivors of the war of the rebellion except for disease or other disability existing in a pensionable degree.

The number of claims pending for original invalid pension, nearly all based upon service in said war, and in many of which the claimant has no pensionable status, at the close of the fiscal year was:

Under general law	13, 140
Under act of June 27, 1890.....	35, 214
Total.....	48, 354

This is exclusive of 6,577 claims in which the soldier has died since filing his claim and a claim has been filed by his widow or dependents.

The actual number of soldiers represented by these claims is 44,318, indicating that there are more than 150,000 survivors of the war of the rebellion who have never applied for pension.

It appears that of the 403,569 claims of all kinds pending, 33,532 are claims on account of the war with Spain; 24,206 are claims for accrued pension due deceased pensioners; 6,577 are claims that were filed by soldiers who have since died, and their widows or dependents are completing the claims for the pension which may have accrued therein; 11,798 are claims of invalids that have never been adjudicated; 32,520 are original invalid claims that have been rejected from one to many times each, claimant failing to show title; 41,399 are claims for "new disabilities," claimant having been pensioned and

asking recognition for other disabilities of service origin, and 228,534 are claims for increase, reratings, reissue, restoration, additional, etc.

Attention is invited to the small number of claimants (11,798) for account of the war of the rebellion who have never had an adjudication of their claims; many of them have had claims pending for years, but through no fault of the Bureau. About one-fifth of the number were filed during the past year, and the necessary evidence has not yet been furnished to complete them; about 40 per cent, or two-fifths, of the number were filed prior to 1896, and nearly 15 per cent of the 11,798 are known to have defective military records.

The eastern division has the largest number of this class of pending claims, viz, 3,965, and of this number 1,668 were filed prior to 1896 and extending well back toward the close of the war. They have been kept alive in various ways through the energy and persistence of the attorneys. As an illustration, invalid claim No. 350761 was filed March 11, 1880; only the declaration and attorney's-fee agreements were filed. Calls were made for identification of claimant and the necessary evidence to complete the claim and an order for the claimant's medical examination was issued and sent to the attorney, but the claimant failed to report for examination.

In 1884 the claimant is found to be represented by another attorney. The jacket on case shows several indorsements of calls on the attorney for the address of the claimant. In 1886 another order was issued and sent to the attorney for the claimant's medical examination, and again claimant failed to appear before the surgeons, and the attorney so informed. In 1887 and 1888 the attorney was advised that the claimant had not been heard from. In 1889 notice was given the attorney that no evidence had been filed in the case.

All this appears in the general law claim, and the facts are submitted to show how industrious the attorney has been to meet the requirements of the practice of keeping the claim alive, when it was evident that the claimant himself had entirely abandoned the prosecution of the claim.

The same claimant, through another attorney, filed an application under the act of June 27, 1890, only the declaration and fee agreements having been filed. This attorney has by industry kept this claim alive by making inquiry from time to time of the Bureau as to status of claim or as to the post-office address of the claimant. The latter was given to the attorney the last time December 11, 1900.

Thus the case is kept in the files as a pending claim, although the claimant may be deceased, as his several attorneys seemingly have failed to get him before the surgeons for examination. This claim is twenty-one years of age, and is only a sample of many cases that remain in the pending files. For the reasons stated, and many others that might be given, it is believed that the system and practice are wrong. When

a claim is filed it should be by law required that the claim must be established or completed within five years from the date of filing, and when not prosecuted to a successful issue within that period it should be barred by limitation.

There is no way in which claims of this character can be effectually disposed of under the present system and practice, and these cases must necessarily remain in the pending files for an indefinite period; and a large portion of the time of the examiners is consumed in handling the cases over and over again, with no beneficial results to the claimants.

It is a source of gratification that the number of pending claims has been materially reduced during the past year, and that the work on nearly all classes of claims has been practically brought up to date.

TABLE NO. 20

comprises the report of the operations of the special examination division and the condition of the work in that branch of the service at the close of the fiscal year.

On June 30, 1900, there were 9,794 cases awaiting action in that division, and during the year 13,587 additional cases were referred, making a total of 23,381, of which number 13,379 were specially examined and referred to the proper divisions for final adjudication, leaving 10,002 cases in the division at the close of the fiscal year.

This division is a valuable adjunct to the work of the Bureau, and the results attained thereby are most beneficial both to the Government and to the deserving claimants, many of whom are enabled to establish the validity of their claims through the assistance rendered by this branch of the service when otherwise their claims would fail for want of facilities to locate the necessary witnesses and obtain their testimony.

It is also believed that the effect of the work performed by the special examiners, and their being stationed in different portions of the country often deter wrongdoers from presenting false and fraudulent claims for pension, and stop many from the commission of fraudulent acts in matters relating to pensions.

TABLE NO. 21

is a detailed report of the work of the law division during the past year, in which the methods of those who are engaged in illegal practices against the pension laws are fully set forth.

It appears from this report that of 300 indictments found against offenders, 250 were tried in the courts, resulting in 226 convictions, and that there are now 230 cases in the hands of the United States attorneys awaiting their action.

There are now 19,992 attorneys entitled to practice before this Bureau, an increase of 776 since last year.

The act of March 3, 1899, provides for payment to the wife or minor children of one-half the pension of a soldier or sailor who is an inmate of a soldiers' home, or who has deserted his family for a period of over six months. These claims are settled in the law division, and during the past year 698 claims were allowed under said act, leaving 1,404 claims pending on June 30, 1901.

Attention is respectfully invited to the recommendations contained in this report, viz:

First. A complete revision of the roster of attorneys practicing before the Bureau, and a more careful scrutiny in future of the qualifications of those who apply for admission.

Second. The enactment of a law providing that in claims under the act of March 3, 1899, for division of pension, and in claims for accrued pension, a specific fee be paid by the United States pension agents upon certification of the Commissioner of Pensions, and making the receipt of any other fee unlawful.

Third. That the act of August 7, 1882 (relating to proof of legal marriages in pension claims), should be amended so as to enable this Bureau to determine the status of those who claim pension as the widows of soldiers or sailors by a standard that would be uniform throughout the entire country, in order that many inequalities in the practice based upon existing law would be removed, and justice done many worthy claimants.

Fourth. Amendment of the last clause of section 2 of the act of February 26, 1881, relating to the payment of balance of pension money in the hands of the treasurer of a soldiers' home, at the time of the death of a member, to his wife or children; or, in default of either, to his legal representatives, so as to read—

and in case of his death at the Home, the same shall be paid to his widow, minor child or children under the age of sixteen years, dependent mother or father in the order named; or, in default of either, such balance shall escheat to the United States.

The above recommendations are earnestly commended to your favorable consideration, as well as the reasons set forth in this report for the changes suggested.

TABLE NO. 22

shows in detail the special laws passed by the second session of the Fifty-sixth Congress, numbering 707; of this number 466 were for increase over ratings granted under the general laws through this Bureau and 241 granted original pensions to claimants that had no pensionable status under laws governing the Bureau.

The first session of this Congress passed 684 special acts granting pensions, making a total of 1,391 special acts for the Congress.

The following summary shows the number granted at each rate specified, viz:

Recapitulation, special acts, Fifty-sixth Congress.

FIRST SESSION.

Granting—		Granting—	
\$75	1	\$17	19
72	2	16	8
60	1	15	12
50	59	14	2
45	3	12	176
40	35	10	4
36	5	8	34
35	7	Inoperative—	
30	131	\$20	2
25	21	12	1
24	80	Rate not yet determined	3
22	3		
20	71	Total	684
18	4		

Net increase, exclusive of inoperative acts and those in which rate has not yet been determined: Per month, \$9,813.25; per annum, \$117,759.

SECOND SESSION.

Granting—		Granting—	
\$100	1	\$22	2
72	1	20	78
60	3	18	3
50	52	17	38
45	2	16	10
40	31	15	14
36	11	14	3
35	3	12	189
32	1	8	32
30 ¹	126	No benefit	1
25	24		
24	82	Total ¹	707

Number of acts originated in House

396

Number of acts originated in Senate

311

Total

707

Net increase exclusive of two inoperative special acts and one special act, no benefit: Per month, \$10,016; per annum, \$120,192.

It may be stated that the largest number of private pension bills passed by any previous Congress was 1,388, passed by the Fifty-first Congress.

TABLE NO. 23

is a statement showing the number of applications for army pensions under the general laws filed during the fiscal year ended June 30, 1901.

¹ Including two special acts inoperative.

The following summary shows the different classes of claims embraced in this table, viz:

	Invalids.	Widows, etc.	Total.
Original (new claimants).....	948	5,721	6,664
Original (act of 1890 pending).....	476	847	1,323
Original (now pensioned under act of 1890).....	647	810	1,457
Increase.....			41,406
Duplicates.....	1,026	981	1,967
Army nurses.....			28
Total general laws (except Spanish war).....			52,835

It may be noted that of the above number of applications filed during the year only 6,692, or about 12½ per cent, were filed by new claimants, the balance coming from claimants who are already pensioned or who had claims pending under another law.

TABLE NO. 23A

is a statement showing the number of applications for army pensions under the act of June 27, 1890, as amended by the act of May 9, 1900, filed during the last fiscal year.

A summary of the cases in this table shows the following classes of claims, viz:

	Invalids.	Widows, etc.	Total.
Original (new claimants).....	7,571	15,482	23,053
Original (general-law claims pending).....	1,335	2,794	4,129
Original (general-law claims allowed).....	4,240	292	4,532
Increase.....			72,293
Duplicates.....	29,041	5,804	34,845
Total.....			138,852

The number of new claimants is only about 16 per cent of the whole number of applicants embraced in this table.

TABLE NO. 23B

is a statement showing the number of applications for army pensions, on account of the war with Spain, filed during the fiscal year ended June 30, 1901.

The following summary shows the different classes, viz:

	Invalid.	Widows, etc.	Total.
Original (new claimants).....	12,413	1,744	14,157
Increase.....			627
Duplicates.....	774	102	876
Army nurses.....			4
Total.....			15,664

This table also shows that there were filed 3,417 claims of remarried widows under the act of March 3, 1901, including duplicates.

TABLE No. 23c

shows the number of applications for army pensions received and forwarded by the record division to the different adjudicating divisions during the fiscal year 1901.

The total number of applications received was 210,768, an increase over last year of 36,513. Of this number only 43,906, or about 20 per cent were filed by new claimants, including those filed on account of the war with Spain.

There were filed during the year 114,473 new applications for increase of pension.

The large number of "duplicate" applications reported in the above tables are for original and increase pensions and come from claimants who file an application through two or more attorneys, thinking possibly that the chances of success are enhanced by a multiplicity of counsel.

TABLES NOS. 24 and 24A

show the number of claims received and recorded in the old war and navy division during the year. There were filed 2,107 claims of all classes based upon service prior to March 4, 1861; 6,182 for service in the Navy subsequent to March 4, 1861, including the war with Spain, and 122 claims for bounty land.

The following summary shows the number of applications for navy pensions filed during the year, viz:

	Invalids.	Widows.	Total.
General law:			
Original (new claimants)	189	167	306
Original (pending under act of June 27, 1890)	46	18	64
Original (now pensioned under act of June 27, 1890)	48	6	64
Increase			496
Total			919
Act of June 27, 1890:			
Original (new claimants)	587	652	1,189
Original (general-law claims pending)	47	17	64
Original (now pensioned under the general laws)	58	2	60
Increase			3,006
Total			4,318
War with Spain:			
Original (new claimants)	401	90	491
Increase	13		13
Total			504
Increase and accrued		441	

TABLE No. 25

is the report of the medical referee, and it shows that the work in the medical division at the close of the fiscal year was up to date, not a single claim requiring medical action remaining in his division, aside from a few appeal cases.

The medical division examined and took action in 230,708 cases during the year, being an average of nearly 800 claims for every working day in the year. This result was accomplished with a reduced force of 65 physicians, as against 74 last year.

Your careful attention is invited to the recommendation of the medical referee as to the necessity for an increase in the force of medical examiners in his division, for an increase in the salaries of the medical examiners, and for an appropriation of \$250 to be expended in the purchase of standard works on medicine, surgery, and pathology.

Earnest and persistent efforts have been made to secure better reports of medical examinations from the examining surgeons of the Bureau, with but a limited measure of success. The steps taken in this direction and the reasons for the failure in many instances to obtain full and correct reports of examinations are fully set forth in the report of the medical referee, which merits careful consideration.

It appears that during the fiscal year 1901, 227,880 orders for medical examinations were sent out to claimants, and 189,920 certificates of examination were received and applied to the cases to which they belonged; 26,762 certificates were returned to the boards of surgeons for amendment; 431 certificates were rejected, and 29,449 claimants failed to appear for examination.

The amount of accounts for medical examinations approved for payment during the year was \$829,569.91.

TABLE NO. 26

consists of the report of the chief of the board of review, showing the work done during the fiscal year ended June 30, 1901.

The number of cases acted upon by the board of review during the year was 267,469, of which 107,144 were admitted, 120,090 rejected, 37,188 returned to the adjudicating divisions for further evidence, and 3,047 referred to other divisions for action prior to final adjudication.

The number of cases returned for further evidence was less than 14 per cent of the number examined, as against 18 per cent last year and 21 per cent for the year preceding. This shows a steady improvement in the work of the adjudicating divisions in the preparation of claims for final settlement and that the action taken in pending claims is becoming more uniform throughout the Bureau.

It will be noted that of the number of claims rejected (120,090) 71,324, or about 60 per cent, were claims for an increased allowance, and 97,842, or about 80 per cent of the entire number, were rejected on medical grounds, the majority of which were cases in which the medical examinations found no ratable disability or no disability warranting a higher rate than the pensioner was then receiving.

Attention is also invited to the fact that 9,836 rejections were of a

formal character, arising from the fact that claimants had filed claims under each law, and having made their election by accepting pension under one law their claims under the other law are entered up for rejection, so as to take them out of the pending files.

The following summary shows the action taken by the board of review in original claims during the past four years:

Year.	Admitted.	Rejected.	Total.
1898.....	52,648	48,175	100,823
1899.....	37,077	46,345	83,422
1900.....	40,645	44,670	85,315
1901.....	50,904	48,361	99,265
Total	181,274	187,551	368,825

APPEALS.

The Department, through the board of appeals, acted in 5,428 appealed claims during the year; affirmed the action of the Bureau in 4,471 cases, and reversed the Bureau findings in 546 cases.

The causes of reversal are shown in the following abstract, viz:

To grant rate (original pensions):

General law.....	3
Act of June 27, 1890.....	77
	— 80

To grant increase:

General law.....	88
Act of June 27, 1890.....	79
	— 167

Service origin of disability or death cause.....	68
Reissue to change date of commencement, act of March 6, 1896.....	13
Question of valid marriage and legal widowhood.....	32
Presumption of death after seven years' absence, act of March 13, 1896.....	19
Dependence, widow, act of June 27, 1890.....	7
Violation, act of August 7, 1882.....	3
Title of deserted wife, act of March 3, 1899.....	4
Adjudication dependent mother's claim, act of June 27, 1890, instead of 4707 R. S.....	2
Question of prior voluntary Confederate service.....	3
Desertion from prior or subsequent service.....	5
Question of practice and other grounds not specified herein.....	35
For special examination.....	35
For test medical examination.....	19
For further consideration and readjudication.....	54
Total	546

The last three causes of reversal (108 cases) were not strictly reversals, but were cases returned for further examination.

The following is a comparative statement of appeals for the ten years preceding the fiscal year 1901:

Year.	Total number filed.	Number acted upon.	Reversals.	Percentage of reversals.
1891.....	4, 096	4, 006	409	0.1021
1892.....	5, 074	5, 980	566	.0946
1893.....	5, 410	5, 312	551	.1037
1894.....	3, 264	5, 307	375	.0563
1895.....	5, 227	6, 576	1, 244	.1890
1896.....	5, 122	4, 505	561	.1218
1897.....	5, 862	5, 075	422	.0831
1898.....	13, 307	5, 406	481	.0689
1899.....	9, 647	5, 628	394	.0700
1900.....	5, 185	6, 128	378	.0617
1901.....	6, 316	5, 428	546	.1006

TABLE NO. 27

is a statement showing the value of the pension roll June 30 of each year since 1890 and the amount paid the following fiscal year. The annual value of the roll on June 30, 1899, was greater than ever before or since.

TABLE NO. 28

shows the number of employees, and amounts appropriated for salaries and for special examinations from July 1, 1864. There have been no changes in the above items since 1899.

TABLE NO. 29

is the report of the chief clerk of the Bureau and contains much information of interest regarding the work under his immediate supervision, and his statement as to the efficiency of the employees of the Bureau is justified by the character and amount of the work accomplished during the year.

ACT OF MARCH 3, 1901.

This act amends section 4708 of the Revised Statutes of the United States in relation to pensions to remarried widows by conferring title to restoration of their pensions under conditions specified in the act.

The conditions imposed by the act are that a beneficiary must have been the lawful wife of an officer or enlisted man in the Army, Navy, or Marine Corps of the United States during the period of his service in any war; her name must have been placed on the pension roll because of her husband's death as the result of wound or injury received or disease contracted in such military or naval service; death of, or divorce from, the husband to whom she was married after the death of the soldier or sailor on whose account pension is claimed, and if divorced from said husband, such divorce must have been secured upon her own application and without fault on her part; the widow

must be without means of support other than her daily labor and an actual net income not exceeding \$250 per annum; she must not already be in receipt of a pension from the United States, and where the pension has accrued, upon her remarriage, to a helpless or idiotic child, or a child or children under the age of 16 years, such child or children must be a member or members of claimant's family and cared for by her in order to give her title to restoration under said act.

This law confines its benefits to widows who have been pensioned or are entitled to pension under the general laws, and its provisions are not extended to those who have been pensioned or may hereafter be pensioned under the act of June 27, 1890, as amended by the act of May 9, 1900, or to those whose pensions are based on service only, even if the other conditions are present.

As the act provides that no claim agent or other person shall be entitled to receive any compensation for services in claims thereunder, special blanks for applications and a circular containing a copy of the law with full directions as to the essential elements of title and the proof required to establish a claim thereunder have been prepared and are being furnished by the Bureau to applicants upon their request.

Up to June 30, 1901, 3,258 applicants had filed under this act, and the adjudication of their claims is progressing as rapidly as they are completed by the claimants.

It is not now practicable to estimate the number of persons entitled as beneficiaries under this act.

ACT OF AUGUST 7, 1882.

The act of August 7, 1882, provides that—

the open and notorious adulterous cohabitation of a widow who is a pensioner shall operate to terminate her pension from the commencement of such cohabitation.

This law causes much friction and unkind feeling in the course of its administration, but in the absence of such a law many would be encouraged and permitted to live in adultery and dishonor the memory of their soldier husbands while still enjoying the bounty of the Government. On the other hand, the widow who respects the law and honors society by legally entering into the marriage relation will lose her pension. The law above quoted was enacted for the purpose of stopping the payment of pension of those widows who violate the law by entering into meretricious relations, thus hoping to retain the pension which they would forfeit by remarriage.

In order that the law might be applied to cases falling within its provisions the following paragraph was incorporated in the printed book of instructions to special examiners under date of May 1, 1886 (paragraph 38, page 21), viz:

If pensioner or claimant has cohabited with any man since the death of the soldier, in the absence of a marriage ceremony, the examiner should ascertain first

what relations the parties maintained toward each other, how they were regarded by the community in which they lived, whether they ever openly avowed or acknowledged the relationship of husband and wife and were so recognized by their neighbors and associates; or, if the parties lived in open and notorious adultery that fact should be shown, together with the date they began to so cohabit.

These instructions were amended and a printed book (p. 5) was issued to special examiners February 7, 1889, in order that the practice might be uniform. Special examiners were directed to take a deposition from widow claimants, and among a list of questions to be propounded to them was the following, viz: "Have you cohabited with any man as his wife since the death of the soldier?"

These instructions were in force until changed by me in printed book of "General Instructions to Special Examiners," under date of September 15, 1897, as follows, viz (p. 8, c):

Special examiners must never question the claimant as to whether she has violated the act of August 7, 1882, unless the circumstances of the case or the evidence procured shall show that she has been living in adultery since the death of the soldier and the enactment of said law. In event such adulterous cohabitation shall be shown, the date when such relations commenced and ceased should be fully ascertained. In such cases the examiner will make his investigation carefully and discreetly, so as not to cause unnecessary neighborhood gossip or scandal. The claimant should be made fully acquainted with the testimony procured, and be given an opportunity to cross-examine the witnesses and to produce all evidence in rebuttal that she may desire.

These instructions have been the guide for special examiners since 1897, and only apply to cases that are sent out for special examination to determine their merits.

It must be obvious that the determination of this question presents many difficulties and embarrassments.

It is very difficult to determine the distinction between plain "adultery" and "open and notorious" adulterous cohabitation within the meaning of the law, and it is a very delicate matter for a special examiner to approach this question in his inquiries and to report just what constitutes a violation of the law.

A strict construction of the act would seem to deprive of her pension the widow who openly cohabits with a man as his wife, while one may be guilty of the grossest acts of vice and immorality, as long as it does not constitute "open and notorious adulterous cohabitation" she does not come within the inhibition imposed by the act.

Many peculiar cases arise under this law. The pensioner, when examined by the special examiner, frequently admits under oath sufficient facts to bring her case within the inhibition of the act, and afterwards declares that she did not intend to make the statement credited to her, and that her deposition does not correctly state the facts.

A case that has been made prominent is known as the "Roscommon" case, certificate No. 282562. The man separated from his wife before the war; the woman in the case became the widow of a soldier

in 1867. The man was then 46 years of age and the woman 39, and both became pensioners. In 1869 the man took the widow to his house and they agreed to enter into relations usually sustained by man and wife and have sustained such relations uninterruptedly for more than thirty years. The widow was known as a pensioner and her case was reported to this Bureau; investigation followed, and the conclusion was reached from the evidence elicited that it was a clear case of violation of the act of August 7, 1882; friends interceded and a further investigation was ordered. Naturally, both parties entered a general denial and the verdict was the "Scotch verdict"—guilty, but not proven. The widow continues living in the same relations and to draw pension on account of the death of her soldier husband.

While the law is a most delicate and difficult one to administer, yet I can not recommend its repeal, which would be equivalent to the giving of a pension to the one that violated the laws of the land and disregarded civilized customs, and stopping the pension of the good woman who respects the law by legally assuming the marriage relation.

ACT OF JUNE 7, 1888.

Each year I have directed attention to this law, viz:

That all pensions which have been, or which may hereafter be, granted under the general laws regulating pensions to widows in consequence of death occurring from a cause which originated in the service since the fourth day of March, eighteen hundred and sixty-one, shall commence from the date of death of the husband.

The law is bad; most vicious. It is a standing invitation to file fraudulent claims, and the arrearages are so large, the chances of detection so small, and the inducements so great to commit perjury in preparing claims, when *ex parte* evidence is received. I am of the opinion that every legitimate claim for pension, by reason of death during the war, or for years succeeding the war, has long since been filed, and this law, in the interest of honest government and an honest system of pensioning, should be repealed.

In four years or more of experience I am prepared to say that the widows' claims are filed on an average within thirty days after the death of the soldier, yet old claims are filed from time to time by alleged widows of soldiers that died or were killed during the war. The laws recognize slave marriages, and with a shrewd and competent attorney, backed by willing witnesses "that were present on the back porch in 1860" (though the witness is liable, on investigation, to admit that he or she was not born at that date), when the marriage took place, the Government, it can readily be seen, has no chance, and if the special examiners of this Bureau endeavor to get at the facts, the interested parties at once cry aloud that "the spies" (special examiners) of the Bureau are persecuting the poor widows. The law is worse than bad—it offers a premium on perjury and false witnesses.

Let it be repealed. No pension should go back of the date of filing the claim.

SAMPLE CASES.

I have before me a case that evidences the care, skill, and ingenuity of the attorney, that illustrates the possibilities of the law. The soldier died in the service; the mother applied and received pension as a dependent mother; after the mother's death an alleged widow puts in a claim—establishes by witnesses, who testify under oath that they were present at the marriage of the soldier and claimant. The alleged widow knew, and admits the fact, that she was aware that the mother was drawing a pension as a dependent parent. The Government has no case—the mother was wrongly pensioned—the alleged widow has established her case, and your Commissioner is powerless though he believes the case to be fraudulent.

[Original No. 668,748.]

Claim filed for widow's pension, alleging husband died from "strangulated hernia" incurred in line of duty. In 1876 soldier was murdered, body thrown in unoccupied building, the building fired by the murderer, sufficient of the remains were left and identified; murderer was tried, claimant was a witness for the prosecution, conviction was had, and murderer hanged. The widow long since remarried, but she was persuaded she should have a pension for the period between date of death of her husband in 1876 and her remarriage. Of course, hernia was the soldier's pensioned disability, and she was persuaded that the Bureau could naturally be satisfied that he died of strangulated hernia. Years had passed and many changes had taken place, but fortunately all evidence on the part of the Government was not lost. The claim failed.

The law is bad; it should be repealed.

[Certificate No. 237678.]

Soldier died in the service January 27, 1864. On February 23, 1887, twenty-three years after his death, his widow filed a claim for pension, alleging marriage to him while in slavery by a customary ceremony. Proof was submitted tending to show fact of alleged marriage and their continuous cohabitation and recognition as man and wife up to date of his enlistment. She was pensioned as his widow October 15, 1887, at \$8 per month from January 28, 1864, and at \$12 from March 19, 1886. The arrearage payment in this case was \$2,352. After drawing \$4,000, the pensioner admits that she was never married to the soldier.

[Certificate No. 158348.]

Claimant was pensioned as widow of the soldier from date of his death, December 13, 1871, with allowance for two minor children. She received pension until her remarriage, March 4, 1875. On July 12, 1897, twenty-two years after marriage, the claimant applied for restoration of pension as the widow of the soldier, contending that her remarriage, on March 4, 1875, was null and void, as the officiating magistrate was not authorized or commissioned to act as such until April 5, 1875. On October 4, 1898, twenty-seven years after the soldier's death and twenty-five years after her remarriage, and after having lived with her second husband twenty-two years, during which period of time she united with him in property conveyances and they were universally regarded as husband and wife, she procured a decree annulling said marriage on the ground of fraud and misrepresentation. Evidence adduced on a special examination of the case clearly negatives claimant's contention of fraud and misrepresentation in her second marriage. The arrearage payment in this case would amount to over \$4,000.

This claim will not remain rejected.

[Certificate No. 83833.]

The soldier died in the service December 30, 1862. Claimant was pensioned as his widow from date of his death until August 26, 1870, the date of her remarriage. On February 20, 1893, thirty-one years after the soldier's death and twenty-three years after her remarriage, she filed a claim for restoration of pension as widow, alleging that she lived with her second husband for nearly six years when she discovered that he had a wife and children then living, and that said marriage was illegal and void and not a marriage in fact or law, and thereupon left him. Twenty-eight years after claimant's marriage on August 26, 1870, and twenty-two years after separation from her second husband, she procured a decree, in February, 1898, annulling her second marriage on the ground that at date thereof her second husband had a wife living and undivorced. The arrearage payment in this case was \$2,700.

[Certificate No. 30735.]

The soldier was killed in action September 20, 1863. Claimant was pensioned as his widow from his death until March 10, 1876, when her name was dropped from the rolls upon evidence showing that she was divorced from the soldier November 16, 1858. On January 11, 1898, forty years after divorce from the soldier, thirty-five years after his death, and twenty-two years after her name was dropped from the rolls, the claimant filed an application for restoration of pension as his widow, contending that her divorce from the soldier had been fraudulently obtained by her parents without her consent, notwithstanding the fact that she was the petitioner in said cause. She filed in support of her claim a decree of court obtained November 19, 1897, vacating and setting aside, after a lapse of thirty-nine years, a divorce previously granted her from the soldier on the ground that it had been fraudulently obtained without her consent. Evidence developed on a special examination of this case clearly points to the fact that claimant not only had knowledge of the proceedings in divorce against the soldier, but that the suit was instituted by her consent. The arrearage payment in this case would amount to over \$4,200.

This claim has been rejected; it will no doubt be reopened and will never be disposed of until it is allowed. It will be reopened from time to time.

[Original No. 334617.]

The claimant on June 25, 1886, filed a claim for widow's pension, alleging marriage to the soldier in September, 1859, and his death on July 20, 1873. The soldier never lived with the claimant after his discharge, in 1865, but was divorced from her on February 17, 1868, and subsequently remarried, and died in 1873. The soldier's second wife died in 1871. The claimant, thirty years after soldier's divorce and twenty-five years after his death, had the decree of divorce previously granted him vacated and annulled on the alleged ground of fraud, and the court, in his opinion, states that the purpose of the proceeding, as admitted by counselor for the petitioner, was to apply for a pension from the United States Government. The arrearage payment in this case would amount to \$3,400.

In the case of an alleged widow, a pensioner under certificate No. 260370, the papers on file show that the soldier died on September 14, 1862; that the pensioner filed her claim on October 5, 1888; that pension was allowed in 1889 at \$8 per month from September 15, 1862, \$12 per month from March 19, 1886, and \$2 per month additional for one minor child who attained the age of 16 years on December 30, 1877. Pension was paid until January 4, 1900. It was discovered shortly after that the pensioner had remarried on October 8, 1872, and that out of the total payments, amounting to \$4,517.40, she had been overpaid the amount of \$3,402.40.

[Certificate No. 155951.]

Pensioner served from August 6, 1862, until his discharge, March 30, 1863, on surgeon's certificate of disability. He died October 31, 1863. His widow filed declaration for pension December 8, 1863. She was lawfully married to the soldier May 21, 1859. She was pensioned by certificate No. 155951, dated February 17, 1872, at \$8 per month from date of soldier's death. No payment under this certificate was made. Four or five years after the death of the soldier the claimant began cohabitation in * * * with one * * *, and these parties thereafter lived together as husband and wife until his death in 1878, and during this period she was recognized as his wife in a property conveyance. On June 19, 1900, thirty-seven years after the death of the soldier, and twenty-three years after the death of * * *, with whom claimant lived several years as his wife, she filed an application for restoration of pension as the widow of the soldier, alleging as a ground therefor that she had never remarried, and that her relations with said * * * were not marital. The approximate arrearage payment in this case would amount to \$4,512.

This case will not remain rejected.

SAMPLE OF EX PARTE EVIDENCE.

[Certificate No. 496363.]

Certificate for pension issued August 21, 1900; first payment, about \$5,545. Soldier died February 5, 1882. Widow filed claim March 2, 1892. Soldier mustered into United States service as major regiment November 10, 1861; promoted to lieutenant-colonel February 16, 1862; promoted to colonel November 21, 1862. Honorably discharged January 22, 1864, upon tender of resignation for disability, alleging chronic rheumatism. Soldier was pensioned for gunshot wound of left arm, the only disability alleged of service origin. Shown by evidence that heart disease was cause of death.

Claimant admitted that soldier had rheumatism before entering service; that he seemed to be perfectly free from rheumatism for years after discharge; that the soldier, some years before his death, while on a visit to Coney Island, jumped into the ocean and rescued a woman; that the effort strained a valve of his heart. However, evidence was submitted to overcome all these "alleged facts," and it was satisfactorily established that rheumatism originated in the service, and that it resulted in heart disease and death. Claimant was pensioned to date from February 6, 1882, date of death of the soldier.

[Certificate No. 500679.]

The certificate was issued in this case October 9, 1900. The first payment thereon was about \$4,500. The claim was filed November 27, 1893. The soldier died December 17, 1863, while in the service, and the claim being under the general law, it carried arrears from the date of the soldier's death at the rate of \$8 per month, commencing December 18, 1863, and \$12 from March 19, 1866, with \$2 additional for one minor child during the period of its minority. As the claim was not filed until thirty years after the soldier's death, and the witnesses testifying therein nearly all signing by mark, it was necessary to refer the claim to the field for a careful special examination to determine the facts relative to the merits thereof. It was shown that the claimant was married to the soldier according to slave custom in the State of Mississippi about July, 1859, and that they lived together according to the customs then prevailing as man and wife, and were so recognized until his enlistment in the military service. The soldier enlisted July 2, 1863, and died December 17, 1863.

Just so long as the act of June 7, 1888, remains a law, and the names of soldiers can be found who died in the service, no widow's claim having been filed, with the law recognizing slave marriages, claims will continue to be filed for widow's pension and allowed; the Government has no defense.

Cases in illustration of the effect of this law might be multiplied indefinitely, but the few cited are sufficient to convey some idea of its operation and of the abuses which have and are constantly arising under its provisions, and will continue to develop so long as it remains upon the statute books.

The law is an open invitation to fraud, perjury, and misrepresentation, and its enforcement has demonstrated by experience that it has openly invited and been the subject of gross and flagrant abuse, and it should be repealed.

The large amount involved as a first payment in each case is too tempting; evidence can be filed to make an *ex parte* case and the Government has no opportunity to secure evidence in rebuttal. Each year your Commissioner has urged the repeal of this law. Soldiers get no arrearages. The pension is intended to aid the widow during her widowhood.

Repeal the act of June 7, 1888, then this class will start as other widows' pensions, viz, from the date of filing the claim. This act became a law as a "rider" on an appropriation bill.

GUARDIANSHIP.

The matters with which I shall have to deal under this head have demanded a large share of my attention during the past fiscal year, and, in fact, for a considerable length of time previous, as will appear.

Prior to the year 1900 there was no general and systematic undertaking by this Bureau to ascertain the disposition made of pension money paid into the hands of fiduciaries. Supervision of their conduct in the expenditure of the pension funds intrusted to them and their direction therein were left almost entirely to the courts appointing them, notwithstanding their want of jurisdiction in such matters, as clearly shown in Federal court decisions and as apparently conceded by many of such and other State courts (*U. S. v. Hall*; 98 U. S., 343; case of Edward F. Waite, 81 Fed. Rep., 359), the Bureau acting merely in an advisory capacity when consulted by judges of probate or the parties in interest, and invoking the laws where necessary in cases of embezzlement or other more or less flagrant breach of trust.

In January of that year (1900) a requirement having your approval was put into effect whereby guardians were to render to the Bureau, through the several pension agencies, annual accounts of their receipts and expenditures of pension money.

Before proceeding to dwell upon the more obvious advantages derived and to be derived from such requirement, it will be well to give some account of the conditions which called it into operation. The awakening to the full extent to which pension money was being diverted from its proper uses, and the pensioners and the Government alike were being defrauded under the system—or rather lack of system—which had obtained prior to its adoption, may be said to have had its beginning in instructions issued to the several pension agents in November, 1898, to thereafter require, in the execution of vouchers of payees of pension who were persons other than the pensioners, first, that in each of such vouchers the whereabouts of the pensioner be stated specifically therein by the person who executes the voucher, and, second, that the persons who testify that the pensioner is alive shall in every instance be competent witnesses, who reside either in the institution where the pensioner may be confined or in the immediate vicinity of his place of abode.

This action was dictated by the suspicion that in many cases stock witnesses were being employed to meet the then existing requirements of such vouchers. The suspicion was fully justified. The disclosures which followed were in some instances of a startling nature. There were cases in which guardians were found to be drawing pensions on account of their wards long after the death of such wards—in one case now recalled the period involved being of several years' duration—and letters were received from all quarters, mostly from officials of asylums for the insane and other institutions for the maintenance of the indigent and infirm, showing that they had had charge for varying periods of Federal pensioners without knowledge of the fact that they were pensioned until called upon to testify that the charges were still living. Many of these pensioners were and had been for years pensioned at the highest rates on account of their infirmities shown to have been contracted in the service, and a number of them were discovered to be inmates of the Government Hospital for the Insane in this city, maintained wholly at Government expense.

Thus will be seen the necessity for the requirement that guardians receiving pension money should account to this Bureau as the distributing agency for the fund set aside to relieve ex-soldiers and ex-sailors and their relatives.

The disclosures following its adoption were equally startling in many instances. Thousands upon thousands of dollars of pension money were found, upon receipt of the first accounts, to have accumulated in the hands of these officers of State courts, over whom in many cases scant or no supervision had been exercised, while their wards—the persons designed to be benefited thereby—were in most instances relegated to such provision merely as could be obtained in institutions maintained at public expense. Improper, exorbitant, and extravagant

items of expenditure, for objects and purposes other than to benefit the ward even indirectly, were shown, and as, more often than the contrary, authorized and approved by the courts. In one case a guardian whose ward was a public charge was found to have expended \$4,000 of pension money in the erection of a house, which he turned over to the pensioner's adult son. In another the guardian was shown to have purchased a farm with the pension money and mortgaged it to his sureties to secure them against loss in case he should default in his trust. Other cases were revealed in which the guardians were appropriating the pension to their own use in various ways, while the wards were being maintained at public expense. And all these are aside from the cases of actual and deliberate embezzlement unearthed, as the guardians are shown to have acted with the consent and approval of the courts.

The work of auditing these accounts is voluminous and exceedingly trying, as a large percentage of the guardians have been found unable to give any detailed or intelligible statement of their doings, and many are found to be illiterate to the point of having to sign their names by mark, and their consequent incapacity is a menace to the fund and an unnecessary burden thereon, through the employment of others to transact their business.

The accumulations to which I have adverted were so vast and their tendency to increase was so apparent as to lead me to cast about for a means of terminating or at least putting some check upon the evil, and as the pension laws as then interpreted for my guidance did not seem to clearly afford such means, I addressed you to the following effect under date of May 1, last:

I have the honor to invite your attention to a condition of affairs resulting from the present and heretofore existing practice in paying pensions to fiduciaries, which suggests to me the necessity for some remedial action.

The guardians' accounts rendered to this Bureau in compliance with the requirement recently adopted with your approval show large and steadily increasing accumulations of pension money in the hands of many of this class of payees, and in many cases these accumulations are found to equal or to largely exceed the amount of the bonded security.

For this state of affairs the causes shown or assigned are various.

In the cases of minor children, the guardians are found to be withholding the pension, with and without court instructions, to provide their wards "a start in life" on attaining their majority. Such action may be appropriate and justifiable where the children have other means of support, but in many cases it is found they are being deprived thereby of the advantages of proper training during the formative period of their lives through the necessity they are being put to of being self-supporting.

By far the more important cases, however, viewed as to the conditions herein dwelt upon, are those of the insane, as in such the highest rates of pension are involved and the pensioners are of that class for whose maintenance more or less adequate State provision is made. This provision the guardians are sometimes obliged to accept, and in certain of the States it seems the authorities of the hospitals

provided are prohibited from receiving substantial contributions in money or goods for the use and support of their charges, while in other cases guardians are found to avail themselves of such State provision and let it suffice, where the pension is ample to provide their wards the greater comforts and better medical attention to be obtained in private institutions, or there is nothing to prevent its being applied to supplement such provision. The result is that numbers of these pensioners are classed with and receive no better treatment than paupers, while the Federal bounty designed to save them from such condition is withheld from them for the enrichment of their legal representatives, who are in many cases not within the degrees of relationship to the pensioner entitling them to consideration under the pension laws, and were consequently not intended by Congress to be benefited by the pension fund, and should certainly not be admitted to participation therein through such deprivation of the pensioner.

There are many cases of this latter class. A statement of the conditions found in three of them is herewith submitted as best showing the evils of the situation and the extent to which pension money is being diverted in the manner described.

As the law authorizing payment of pensions to guardians provides only that "payment to persons laboring under legal disabilities may be made to the guardians of such persons" (sec. 4766, R. S. U. S.) and is therefore held to be merely permissive and not mandatory in its terms, I would suggest, as the most effective, if not the only available corrective means in the present state of the laws, that a wider discretion than appears to be permitted under Departmental Decisions in the Edward W. Moore case (P. D., vols. 8, p. 400, and 9, p. 55) be given me to exercise in the matter of authorizing payment of pensions to guardians to the end that such payment may be made only as there is shown to be need of the pension for the pensioner's immediate use and benefit, and as it is shown to be so applied, the pension withheld in pursuance of such course to be paid to the pensioner upon his or her restoration to competency, or in the case of minor children upon their attaining their majority, and in the event of the pensioner's death, in accordance with the provisions of the act of March 2, 1895, which it is submitted should be the law of distribution in all cases as relates to the pensions of deceased pensioners.

This letter, being referred for the consideration of the board of pension appeals, called forth an exhaustive exposition of the relevant laws and their interpretation by the Federal courts, with the following conclusions:

1. The guardian of a pensioner is the agent of the United States for the proper expenditure of pension money in his hands, irrespective of the duties devolved upon him by the State law.

2. A pension fund granted to a pensioner, in the hands of a guardian, is in transitu until it reaches its final destination and is controlled only by the United States; and the Commissioner of Pensions is invested with the discretionary power necessary to the proper administration of the pension laws, and guardians holding pension funds are subject to his direction both before and after the death of their wards.

3. All funds which have accumulated in the hands of a guardian by operation of the pension law and have not been paid to the pensioner or expended in accordance with law in his behalf are in the nature of accrued pension.

4. An unexpended pension fund in the hands of a guardian has not, in legal contemplation, been paid to the pensioner and is an accrued pension.

5. The act of March 2, 1895, is the law of distribution of accrued pension of a deceased pensioner and applies to the fund in the hands of a guardian unexpended at the time of such pensioner's decease.

Under this decision it has been determined to pay further pension to guardians only as the needs of their wards shall require, the pension withheld to be paid to the pensioners upon their restoration to competency or distributed in accordance with the provisions of the act of March 2, 1895, upon their death. Such further action as appears warranted by its terms, being as yet merely in contemplation, must be left a subject for future report.

I have the honor to submit a few sample cases of the accumulation of funds in the hands of guardians, while the intended beneficiary of the Government's bounty is being cared for in some public institution at the expense again of the public, viz:

No. of pension.	Date of report.	Amount in hands of guardian.	No. of pension.	Date of report.	Amount in hands of guardian.
485668.....	Aug. 4, 1900	\$16,012.07	509031.....	Aug. 4, 1900	\$4,190.27
115661.....	Aug. 4, 1899	13,344.52	117565.....	Sept. 4, 1900	17,800.00
126007.....	June 4, 1900	12,806.79	577994.....	Aug. 4, 1900	8,324.77
30096.....	Sept. 4, 1899	16,031.57	11347.....	July 5, 1900	1,393.81
157615.....	Mar. 1, 1901	13,342.50	231370.....	Aug. 4, 1900	2,381.44
196558.....	Sept. 4, 1899	19,756.00	6117.....	Sept. 4, 1900	26,019.31
89951.....	Sept. 4, 1900	12,211.68	668845.....	do.....	9,091.65
336336.....	Mar. 27, 1900	18,545.63	333320.....	do.....	14,002.80
140860.....	Aug. 4, 1900	24,029.62	494890.....	Aug. 4, 1900	4,867.89
99017.....	May 1, 1900	18,198.50	316964.....	do.....	7,102.63
165218.....	Sept. 4, 1899	14,163.10	235658.....	Dec. 31, 1900	4,812.55
481779.....	do.....	15,616.39	687020.....	July 4, 1900	5,237.07
814241.....	Oct. 4, 1900	21,703.34	59844.....	Aug. 4, 1900	2,567.24
34495.....	July 4, 1899	6,148.01	490051.....	Sept. 4, 1900	19,530.35
50509.....	Aug. 4, 1900	5,031.32	482102.....	Aug. 4, 1900	1,820.78

In conclusion, I would state it as my conviction that the justness of said decision, the truth of its deductions, and the consequent directness and force of its conclusions will appeal to the courts, to all right-minded guardians and others directly or indirectly concerned, and the general public as well, and I have, further, no doubt that these will fully approve the practice to legitimately flow therefrom.

PENSION AGENCIES.

During the year the eighteen agencies for the payment of pensions disbursed \$138,405,159.74 to pensioners and \$1,177,072.24 in the payment of salaries, clerk hire, and miscellaneous expenses, without loss to the Government.

During the year attention was given to correcting the practice of accepting vouchers of pensioners so imperfectly executed that they were worthless to the Bureau as evidence in actions at law to recover moneys fraudulently obtained, and against persons under indictment for violation of the pension laws. The efforts in this direction have borne good results, and the requirements that the laws and rules relating to the payment of pensions be strictly observed has materially improved the efficiency of this branch of the service.

The accounts of the agents are now submitted for audit in better

condition and with greater uniformity, thus enabling the accounting officer to pass upon them without delay.

The following table shows the agencies occupying offices in leased quarters and the rent paid therefor:

Office.	1897.	1898.	1899.	1900.	1901.
Buffalo	\$2,928.00	\$1,857.00	\$1,500.00	\$1,500.00	\$1,000.00
Detroit	2,400.00	2,400.00	2,400.00	1,600.00	.....
Indianapolis	2,500.00	1,833.33	1,500.00	2,300.00	2,300.00
Milwaukee	2,500.00	1,916.66	1,250.00	.....	.....
New York City	10,000.00	5,000.00	5,000.00	4,500.00	4,500.00
San Francisco	1,872.00	1,443.00	1,300.00	1,300.00	1,300.00
Topeka	2,250.00	1,750.00	1,500.00	1,500.00	1,375.00
Washington	1,380.00	1,380.00	1,380.00	1,380.00	1,380.00
Total	25,830.00	17,579.99	15,830.00	14,080.00	11,855.00

During the year the agencies of Buffalo, N. Y., and Topeka, Kans., were removed to Government buildings, so that at the beginning of the year only four agencies occupied offices outside of buildings owned by the Federal Government. The rented quarters for the current fiscal year will cost the Government \$9,480, so that the cost of agency quarters has been reduced since July 1, 1897, \$16,350.

The average number of clerks employed at the agencies during the year was 426.

SPECIAL EXAMINATIONS.

The number of cases in the field for special examination has been largely reduced. On December 31, 1898, there were 15,522 cases in the field awaiting special examination. Instructions were sent to special examiners to return to the Bureau all cases that had been in the field over twelve months. Many of these were old cases in which the combined efforts of the claimants and the Bureau had failed to adduce sufficient evidence to warrant their allowance. They were placed in the hands of some of the most competent and careful examiners, and while many of these claims were rejected, if there was a possible chance of the claimants being able to establish their claims the papers were returned to the field to afford them another opportunity to do so.

Last January another call for the return of old cases from the field was made, and they were also submitted to competent and skilled examiners, with substantially the same results. A large number of the claims were rejected, while others were either allowed or returned to the field for further inquiry.

It is proper to state that these claimants are mostly pensioned under the act of June 27, 1890, and are seeking the benefits of the general law by attempting to establish their claims for disabilities incurred in the service in line of duty, thereby receiving greater benefits.

On June 30, 1901, the number of cases in the field for special examination had been reduced from 15,522 in 1898 to 10,002, and the num-

ber of special examiners had been correspondingly reduced from 263 in 1898 to 198 in 1901.

Aside from the detection and prevention of frauds upon the Bureau, the facilities afforded by the special examination division are freely accorded to many seemingly meritorious claimants for pension who by lapse of time or for other causes are unable to establish their claims and who have exhausted all sources of information available to them in the prosecution of their claims. The work of the special examiners enables the Bureau to allow pensions in many cases where the efforts of claimants to secure the necessary evidence have proved unavailing.

At least 75 per cent of the cases sent to the field for inquiry are made up of claims that would have to be rejected for want of satisfactory evidence, so that the benefits afforded by this service are mainly in the interests of claimants and frequently result in the allowance of pensions in cases that would otherwise be rejected.

Under the present system of adjudicating claims this service is invaluable and could not safely be dispensed with.

Much has been said in the way of criticism about the "spy" system in the special examination of claims for pension, but there is nothing whatever in the methods pursued that justifies the criticism. Special examiners are guided in their work by the book of general instructions, and on page 3 of said book their duties are defined as follows:

He should assist the worthy claimant in procuring the necessary testimony to complete the claim, expose fraud, and bring to justice the criminal.

Special examiners are further instructed that—

special examinations, except in criminal cases, will be conducted in no way secretly, but will be free and open to all parties in interest. Every claimant or pensioner whose claim is under investigation shall have the privilege of being present in person or by attorney, and shall have the privilege of cross-examining all witnesses who may testify therein.

Special examiners are carefully held down to the rules above cited, and their work is not accepted as satisfactory unless the said rules have been fully carried out.

CAUSES OF REJECTION.

Attention is invited to the number of claims rejected during the year as shown in the report of the chief of the board of review, and it may not be out of place to present some facts which may serve to explain the necessity for such action. It will be observed that a large percentage of the rejections were on medical grounds. This arises from the fact that invalid claims under the acts of June 27, 1890, and May 9, 1900, as well as claims for increase of pension depend almost entirely upon the question whether a ratable disability or an increased disability is shown, and it is the function of the medical division to pass upon these questions.

The other causes of rejection arise in claims for which no provision is made by existing laws; also in claims which are fraudulent, and claims in which the claimant is unable to furnish the necessary proof.

In the first-named class are included claims of soldiers and sailors who are not suffering from a pensionable disability; claims under the act of June 27, 1890, in which the soldier or sailor has not received an honorable discharge from the service, who voluntarily aided or abetted the late rebellion; who did not serve the full period of ninety days in the war of the rebellion; claims of widows who were married to the soldier or sailor subsequent to the date of the passage of the act, and claims of widows and dependent parents who have sufficient means of support aside from the proceeds of their own labor.

The other classes in which favorable action is not warranted embrace claims wherein the claimants have declared their inability to establish the facts necessary to give them title to pension under existing laws, most of which have been out in the field for special examination, and others that have been found to be entirely devoid of merit, and where the claimants are endeavoring to secure a pension by means of fraudulent testimony.

Another class of claims are reported under the head of "rejected," when as a fact pension has been granted to claimant. This arises from the fact that since the passage of the act of June 27, 1890, many claimants keep two claims running, one under the "general" law and one under the "new" law; hence, when the claim is allowed under one law as conferring the greater benefit to the claimant, the claim under the other law fails to confer a benefit, and a formal rejection is entered as to such claim in order that it may be taken out of the pending files.

Many claims are filed for "new disabilities" alleged as of service origin. The great majority of such claims must necessarily be disposed of by rejection. These claims are filed by claimants who may have been pensioned for years for some disability contracted in the service, and whose pensions have possibly been increased one or more times as the result of medical examinations. The reports of the surgeons showing that no other disabilities were found to exist, and there being no record of claimant's treatment in the service for the alleged new disability, and no claim having been made on that account for many years, it is almost impossible to connect such disability with the service at this late date by competent evidence.

Frequently men are pensioned for disability contracted in service and line of duty, and in later years other disabilities (possibly of a serious character) have come upon the pensioner, rendering him practically helpless. He files an application for increase based upon these disabilities, which are not of service origin. As service disabilities can not be combined with disabilities subsequently contracted to allow

a rate in excess of \$12 per month these claims must obviously be rejected, although the pensioner may be totally helpless from causes not due to service.

On June 30, 1896, there had been 359,000 invalid pensions granted under the act of June 27, 1890, and since then about 120,000 more have been allowed. A large percentage of these claims was allowed from the date of filing a declaration subsequent to the filing of the first application, no disability having been shown at the date of filing the first application. A great many of these cases have been reexamined by reason of applications filed under the act of March 6, 1896, which provides:

That whenever a claim for pension under the act of June 27, 1890, has been or shall hereafter be rejected, suspended, or dismissed, and a new application shall have been or shall hereafter be filed, and a pension has been or shall hereafter be allowed in such claim, such pension shall date from the time of filing the first application, provided the evidence in the case shall show a pensionable disability to have existed or to exist at the time of filing such first application, anything in any law or ruling of the Department to the contrary notwithstanding.

This law has been very fruitful of applications for reconsideration of claims with a view to changing the date of commencement of pension to the date of filing the original applications; but as the proviso in the act requires that a pensionable disability must be shown to have existed at that date it will readily appear that many of these applications must fail for want of the necessary evidence required by the law, and hence the large number of rejections.

It is believed that less of the productive force of the Bureau will be taken up in the consideration of this class of claims, as all the adjudications since March 6, 1896, have carefully observed the requirements of said act.

Many other causes for the rejection of claims might be enumerated, but it is believed that the facts already cited will serve to show why it is incumbent upon this Bureau to enter up the number of rejections shown in this table.

IDENTIFICATION OF CLAIMANTS FOR PENSION.

The weakness of the system of pensioning is nowhere so strongly emphasized as in its insufficient means to prevent false personation or to establish the identity of claimants as the persons who rendered the alleged service in the Army or Navy, or of their dependents.

Under the practice that had long prevailed in the Bureau no proof of identity was usually required of claimants except the formal certificate in the declaration of two witnesses, whose knowledge of the applicant did not, as a rule, extend back to the period of the soldier's service. There was nothing to prevent anyone from personating a deceased soldier, or even a living soldier if he had not applied for pension, and presenting a claim for pension on account of the service

rendered by said soldier, and, if found disabled, from receiving a pension.

In my annual reports for 1898, 1899, and 1900 I cited some leading cases in illustration of the methods used by unscrupulous persons in defrauding the Government by presenting false claims for pension. In one case a pension attorney, who was also a notary public, of Providence, R. I., usually kept the certificates of pensioners in his office and executed the quarterly vouchers for the pensioners. If a pensioner died, this man continued to execute the vouchers, forging the name of the pensioner, and usually those of the identifying witnesses, as well as the payee's name, to the pension check. Nineteen cases were discovered in which the pension had been regularly drawn by this man for years after the death or remarriage of the pensioner.

In one of the Southern cities a gang of pension swindlers was discovered whose operations had been very extensive along the same line. The name of the soldier was selected from the records of the soldiers' cemeteries upon which to base a claim for widow's pension. The necessary papers were then executed by a notary, who signed and sealed the papers without seeing or swearing the witnesses, and upon investigation it was found that in 234 claims filed by this gang the alleged soldier did not perform the service upon which the claim was based, or that fabricated papers had been filed. Of the number of claims that had already been allowed under the operations of this gang of swindlers it was found that 51 pensioners were not entitled to the pensions they were receiving, and their names were dropped from the rolls.

To what extent the same practices may have been carried on in the past in other localities it is impossible to say, but the discovery of the many attempts at fraud by false personation led me to give the subject considerable study, and a plan has now been adopted which it is hoped will, to some extent at least, limit the chances for fraud in this direction.

Circulars have been carefully prepared, which are sent to claimants, requiring them to answer certain questions relating to their alleged service and their places of residence before and after such service, together with other facts which may tend to identify themselves as the persons who rendered the service or as the legal heirs of the soldier or sailor on whose service the claim is based.

Special care is also exercised looking to the prevention or detection of any attempts at fraud in the matter of false personation of soldiers or their legal heirs.

SPANISH-AMERICAN WAR PENSIONS.

There has been considerable comment in some quarters with regard to the number of applications filed and the number and rates of pen-

sions that have been and are now being granted to those who served in the war with Spain and the insurrection in the Philippine Islands as compared with those which were allowed to the soldiers of the war of the rebellion for many years after the close of the war.

It must be admitted that the soldiers of the Spanish-American war are enjoying greater benefits in the way of pensions than were granted to the soldiers of the civil war, in that they are given much higher rates of pension under existing laws upon their discharge from service than were the soldiers who fought in the civil war. The general pension laws, which have been extended and liberalized by acts of Congress passed since 1865, are applicable to the soldiers of the war with Spain, and while thousands of the soldiers of the war of the rebellion were granted pensions at rates of \$2 and \$4 per month for many years after the close of the war—up to March 2, 1895—the smallest pension that can be allowed to the soldiers of the Spanish-American war is \$6 per month.

In 1865 a soldier who had lost an arm at the shoulder joint or a leg at the hip joint in service and line of duty could receive only \$8 per month; in 1898 a soldier disabled in the same way received \$45 per month. On June 30, 1890, there were on the rolls the names of 95,835 invalid pensioners of the civil war at rates less than \$6 per month, and of these 21,232 received but \$2 per month and 71,789 were pensioned at \$4 per month.

The great civil war lasted for four years, and during its progress no such desperate fighting was ever known. The casualties from shot and shell were unprecedented, while the number of deaths from disease in camp and prison was enormous. All this has been told and retold, written and rewritten; it is a part of the history of our mighty Republic; more than 2,000,000 men served in the Union Army.

The war with Spain was short, sharp, and vigorous. A call was made by the President April 23, 1898, for volunteers, and on May 25 another call was made for more. Within fifteen days after the declaration of war the Spanish fleet at Manila was destroyed. July 3 another great war fleet was destroyed at Santiago. A few days later the Spanish army at Santiago surrendered, and within one hundred days from the declaration of war the enemy was petitioning for peace. It was a summer campaign—beginning in the late spring and ending in the early fall—the average term of service having been about six months. Great results had been accomplished; the direct casualties from shot and shell were few, but the results from disease incident to camp life and exposure to climatic conditions were much greater.

Commissioner Baker, in his report for the year 1872 (eleven years after the beginning of the civil war), reported that about 6 per cent only of the soldiers serving in the Union Army had filed claims "for impaired health or disability resulting from their period of service."

The volunteer army raised for the war with Spain was mustered out early in the fall of 1898. The volunteer army which was subsequently raised for the suppression of the insurrection in the Philippines has returned and it was nearly all mustered out prior to July 1, 1901.

The number of claims filed for pension as a result of disabilities incurred in the service in line of duty from April 21, 1898, to June 30, 1901, was 45,710. Since the latter date many claims have been filed as the result of the muster out of troops at San Francisco during the month of June, 1901.

It will be remembered that all claims for disabilities contracted in the service since April 21, 1898, both of the Volunteer and Regular Army and Navy, are being charged to account of the Spanish-American war.

Much criticism has been visited upon the Spanish war soldiers by reason of the promptness with which they filed claims for disabilities, and by reason of the large percentage of claims filed, considering their short service and the absence of battlefield casualties as compared with the civil war. Only a little over three years have passed since the hostilities began, and yet claims amounting in number to about 20 per cent of the number of men enlisted for the Spanish war have already been filed; while with four years of the most terrible war—1861–1865—and at the close of the fiscal year 1872, seven years thereafter, Commissioner Baker reported that only about 6 per cent of the soldiers had filed claims.

I am not prepared to believe that those who engaged in the war with Spain, many of them sons of the veterans of the civil war, were less patriotic than their ancestors, or that they are more covetous, but in my opinion it is the fault of the system of pensioning, with its active army of attorneys, solicitors, and drummers, practically employed and licensed by the Government to solicit and secure applications for pension with the promise of \$25 for each claim that is secured and allowed. No blame or criticism should be attached to the soldiers, as they are importuned and persuaded that it is their duty to file claims whether disabled or not.

Under the system adopted by the War Department upon the muster out of the volunteer soldiers they were required to state over their own signatures whether they were then suffering from any disability. The great majority stated that they had no disabilities, and in this statement they were corroborated by the certificate of the commanding officer of the company and by that of an army surgeon, and although all three have certified that no disability existed at date of muster out thousands of applications for pension have been filed in which are set forth in great detail the dates and circumstances of origin of a number of disabilities in service with a statement that they have

continued ever since. It is unnecessary to state that the names of the disabilities were usually suggested by the enterprising, and to the Bureau unknown, solicitors. Forty-eight hours earlier the claimant made statement over his own signature that he had no disability of any kind; the commanding officer confirmed it; the surgeon then examined the soldier and certified that he had no disability.

These solicitors are mostly employed "by the piece" and their compensation is regulated according to the quality of the claim, prices ranging from \$1 to \$2.50 for each application thus secured. For full details on this subject attention is invited to the report of the chief of the law division. (Pp. 105 to 111.)

It is needless to say that many of these claims will rest under a ban of suspicion because of the methods adopted in securing them, and already letters are received from claimants stating that they did not wish to file the applications but were overpersuaded; that it seemed as if there were seventy-five attorneys after each man, and that they had no disabilities then and have none now.

Thus the system and practice make it too hard for the legitimate, honest claimant to secure what the Government intends he should have, and make it too easy for the impostor and dishonest claimant, backed by unscrupulous attorneys and willing witnesses, to secure what he should not have. The honest man is at a disadvantage.

GENERAL CONDITIONS.

A careful study of the different tables leads to the conclusion that new conditions confront the Bureau and the nation, with regard to the extension of the pension system in connection with the filing of new claims on account of service in the war with Spain and the insurrection in the Philippine Islands.

In the war with Spain volunteer troops were called into service to the number of about 250,000, supplemented by a call in 1899 for 50,000 men for service in our new possessions, together with a material increase of the regular military establishment.

There has arisen a new era, a new feature of pensioning, the result of the above wars, and a study of its inception and steady progress must convince us that in the light of our experience as to the results of the war of the Revolution and the war of 1812, that the foundation of a permanent pension roll has been established that will steadily increase for many years to come, and that will have its representatives on the rolls at the beginning of the next century, just as the Revolutionary war and the war of 1812 are now and will be recognized for an indefinite period on the present list of pensioners.

It is but fair to say in this connection that under the present system of pensioning the man who secures a record of treatment in service for diarrhea, rheumatism, malarial fever, or any other ailment inci-

dent to military life, has a decided advantage over those who remained with their commands engaged in fighting and in the performance of the fatiguing duties of camp, guard, and picket, and thus escaped the hospital where records of sickness are made and preserved for future use, and under the practice they are presumed to have been sound and free from disabilities of service origin, while, as a fact, their exposures were tenfold greater than those of the men who sought the comforts of a hospital at the first signs of sickness, which may have been of a mild and temporary nature, and left very little if any permanent disability.

A good object lesson in this regard is furnished by the history of a volunteer regiment which was recognized as one of the "crack" regiments in service during the war with Spain. Its membership was notably a fine body of men, and its officers were men of experience and ability and skilled in military matters. Few regiments had as good a record for service as this one. It was at Camp Alger for a time, then at Camp Thomas, then at Tampa, Fla.; thence sailed for Santiago de Cuba, where it was placed in the trenches and did good service until it returned to Montauk. From there it was returned to the place of its enrollment, and at the expiration of a sixty days' furlough was mustered out of service.

This regiment had a membership of 53 commissioned officers and 937 enlisted men. There were no battlefield casualties, but 1 officer and 22 men died of disease while in the service. *The published report of the medical officer on the muster out of this regiment shows that 1 per cent of the men of the regiment were improved by military service; 5 per cent were in as good physical condition as at time of enlistment; 24 per cent were but slightly affected, and, as a rule, the troubles were not traceable to military service. Of the remainder (70 per cent), or 528 men, the general condition was as follows:*

Irritable heart, due to fever	365
Mitral regurgitation	4
Chronic bronchitis	214
Acute bronchitis	47
Phthisis	3
Gastritis	158
Enlarged or congested liver	116
Enlarged spleen	316
Inflammatory condition of intestines	53
Irritability of bladder and incontinence of urine	76
Nephritis	5
Hemorrhoids	11
Varicocele	61
Inguinal hernia	3
Rheumatism	26
Myopia	19
Slight eye strains	29
Slight deafness, due to quinine	17

Chronic nasal catarrh	9
Sprain of back	3
Old dislocation, right shoulder	1
Gunshot wounds, left forearm.....	2
Badly set Colle's fracture.....	1
Secondary syphilis	2
Suffering from pains in the muscles, especially the calves of the legs and lumbar region, loss of weight from 10 to 30 pounds, accompanied by more or less debility.....	471
Relapses of fever continuing to recur up to January 4, 1899.....	87
* * * * *	

Up to June 30, 1901, 477 claims for pension have been filed in this Bureau on account of service in said regiment for disabilities alleged to have been contracted during the brief term of its existence.

I am fully convinced that a small pension of \$6 or \$8 per month for alleged obscure disability, such as diarrhea, piles, rheumatism, impaired hearing, bronchitis, etc., is conferring a misfortune upon a young man—in fact, a life-long misfortune—for the reason that it puts him to a decided disadvantage in the race for a livelihood always thereafter in the way of securing employment.

The fact that he is drawing a “disability” pension puts him on the list as disabled and unable to perform the amount of labor that is expected of a sound man, and it seems like misplaced generosity on the part of our Government to thus place a handicap upon the young ex-soldier in his search for employment, as it is well known that a large percentage of the young men that served in the war with Spain depend upon manual labor for a livelihood.

LEGAL ADJUDICATION OF CLAIMS.

ATTORNEYS AND PRACTICE UNDER PRESENT SYSTEM.

There are features of the present system of adjudicating pension claims which are so faulty as to render it almost impossible for the Pension Bureau to render justice to claimants and properly guard the interests of the Government. Heretofore various measures have been adopted to remedy some of these defects, and in the main they have needlessly added to the expense, time, and labor in adjudicating meritorious claims without effectually preventing the successful prosecution of fraudulent ones. The system was inaugurated many years ago when the number of pending claims was small, and when the annual expenditure on account of pensions was but a small fraction of what it is to-day. Although not now practicable, the methods which it superseded possess many more elements of safeguard. Moreover, the acts of Congress governing the army and navy pensions have multiplied until they have become a complicated system of laws, and the number of pensioners has correspondingly increased until they now number 997,735—nearly a million of persons. The present methods

were never satisfactory, and each year adds to the embarrassment which they occasion.

I should not be faithful to my trust if I did not express my concurrence in the protests of my honored predecessors against the evils of the present system, and also the conviction forced upon me by experience in the office of Commissioner of Pensions that in order to insure with a reasonable degree of certainty the payment of large sums of the money of the United States to that class of persons designated by law to receive them a radical change must be made in the present method of adjudicating pension claims.

In the first place, claims are adjudicated upon *ex parte* testimony, procured and submitted in written form on the part of the claimant. The Government makes no defense to the claims filed against it. The witnesses are not cross-examined and no means have been devised by which it can be satisfactorily determined by the Bureau what manner of men are offered as witnesses, or what reliance is to be placed upon their testimony, unless claims are specially investigated. No judgment could be obtained upon such evidence in any court of law, and an impartial mind is not satisfied as to the correctness of a decision based thereon. It is a lamentable fact that claims are often admitted which are not believed to possess any merit whatever, and claimants whose cases are rejected are seldom willing to accept such action as final. Claimants lack confidence in the decisions of this Bureau as determining the real merits of claims, and it therefore often happens that rejected cases are reopened and appealed again and again, being abandoned only when claimant and attorney have both lost all hope of a favorable adjudication.

After a claim is once admitted, this Bureau ordinarily takes no further action in the case with a view of ascertaining that pensionable status continues; therefore, a pension once granted usually continues for life. It can hardly be maintained that soldiers and their friends, as a class, are so different from other men that none of them have any temptation to at least enlarge upon the truth when thousands of dollars may be obtained by a few affidavits made without even the prospect of cross-examination, and it is equally clear that ordinarily such affidavits would be given very little weight, especially when the affiants testify positively to the existence of circumstances very material to the issue, but which happened years before they became material, and which were not in their nature such as to impress themselves upon casual observers. Yet this is the character of evidence upon which many pension claims are adjudicated.

In the next place, the evidence upon which a claim is adjudicated is prepared and filed by an attorney appointed by the claimant, whose fee is dependent upon the allowance of the claim. There were registered June 30, 1901, 19,992 attorneys authorized to prosecute pen-

sion claims. In the city of Washington alone there are about 1,200 such attorneys, male and female, white and colored. Many of them, without regard to race, color, or sex, are competent, honorable persons who render valuable service to claimants as well as to the Government. It is a well-known fact that some of the attorneys practicing before this Bureau are men of the highest standing in the communities in which they reside, but because of the comparatively small fees which may be charged and the amount of work involved if an attorney is conscientious the pursuit has not attracted so many reputable practitioners as might be hoped for. On the other hand, it has attracted a large number of unscrupulous men who, seeing the many opportunities for the perpetration of fraud with small prospects of detection, calculate to prosecute to a favorable issue nearly every case filed by them, and to accomplish their object they adopt every species of fraud known to men.

Again, the examiner adjudicating a claim, never having seen the applicant nor the witnesses, is compelled to judge of the merits of the case by the mass of papers filed therein, which necessitates the procurement of more testimony than would otherwise be necessary in many meritorious cases, and affords but little opportunity for detecting fraudulent ones—for the fraud is behind the papers. It is seldom that evidence voluntarily filed in behalf of a claimant will cast suspicion upon his title, and manifestly not if the case is skillfully prosecuted. The only aid afforded by law to ascertain facts not disclosed by the evidence filed is the special-examination service. This service is entirely inadequate to be effective. There are only about two hundred special examiners, scattered all over the United States, and but a very small proportion of the claims filed are ever handled by them. Moreover, much of the time of these examiners is required in aiding claimants to procure evidence showing title which claimants themselves are unable to procure because of the length of time that has elapsed since the occurrence of the circumstances material to the issue, the removal of witnesses, etc.

The pension item has become one of the largest in the financial budget. The generosity of the American people to the soldiers and sailors and their dependents knows no limit, but the officers of the Government, the people's servants, should not permit that generosity to be abused. No argument is needed to show that the expenditure of such vast sums of the people's money should rest upon a system containing more of the elements of protection to the Government than can be found in the methods now in force in settling pension claims. The fault is not with the soldier claimant or his widow, but the system devised for ascertaining their rights is so faulty that it offers a most inviting field for the enterprising and adventurous claim agent or attorney. It holds out an inducement to those that may be persuaded to file false claims or fraudulent evidence in support of valid ones. In

fact the system aids and encourages fraudulent practices of various sorts. It is not to be wondered at that the Government is constantly being imposed upon. When attention is called to the defects which are responsible for these conditions, a mighty howl goes up in certain quarters. These conditions are not new. They have existed ever since the war, and able and conscientious Commissioners, members of both of the great political parties, have in their annual reports strongly protested against them.

The following quotations from annual reports of the several commissioners, covering a period of more than thirty years, are valuable contributions on this subject at this time:

Commissioner Cox (appointed by President Johnson), in his annual report for 1868 (p. 27), states:

Many of the attorneys prosecuting claims before this office have, by courtesy of deportment and evident honesty of purpose, commended themselves to favorable consideration, while others have been suspended from practice for cause, and in some cases convicted and punished for flagrant violations of law.

This was less than three years after the close of the civil war. It was only the beginning.

The next Commissioner, Van Aernam (appointed by President Grant), in his report for 1870 (p. 5), states:

Soon after assuming the duties of my present position I became satisfied that a great number of fraudulent claims upon the Pension Office had been made, many of which had been allowed and paid and others were still pending. Not a few of these claims were based upon applications the signatures of claimants or witnesses in which are forged and supported by false affidavits; and there were also claims on the ground of dependence, the claimants in which were for the most part never dependent. These were frauds upon the Government.

The attention of this office has been called to another class of cases which are not wholly fraudulent, nor indeed without merit, when properly presented; but by reason of the large fees demanded by and promised to the parties prosecuting the same, of one-fourth, one-third, and even one-half of the amount collected when the claim was allowed, the testimony in support of these claims has distorted and perverted the facts so as to magnify the character of the claim upon the Government. Here was not only fraud upon the Government, but extortion and fraud upon the pensioner also.

For violation of the twelfth and thirteenth sections of the pension act of July 4, 1864, regulating fees of attorneys, by charging exorbitant and illegal fees and by forging vouchers and other papers in pension cases, 40 attorneys have been arrested, 35 of whom have been indicted, 18 convicted, 11 acquitted, 3 are fugitives, and the cases of 8 were pending at the close of the fiscal year. During the same time 65 pensioners have been arrested for fraud, 42 of whom have been indicted, 22 convicted, 9 acquitted, 4 escaped, and the cases of 30 were pending at the close of the fiscal year.

The next commissioner, Baker (also appointed by Grant), in his report for 1871 (p. 6) states:

As we recede from the war of the rebellion many disabilities, in their nature temporary, are disappearing by recuperative energies, and the pensioner, reluctant to lose his gratuity, oftentimes tries to fortify himself by evidence, which only con-

sumes the time and labor of the office to no purpose. In many of the later applications for original pension it is often a matter of extreme doubt whether the disability at the distant period from the war actually had its origin in the service, so that the line of demarcation between duty to the Government and justice to the soldier is difficult to find.

If such difficulties existed in 1871, what may be said of the condition of affairs existing in 1901—more than thirty years later? At that time most of the invalid pensioners were required to appear for examination to show the continuance of the disabilities for which they were pensioned. Such is not now the case.

In the same report (p. 14) Commissioner Baker states:

There is no infallible test as to the right or justice of a pension that can be applied in this office pending its consideration. Every compliance of law, every requirement of evidence, every condition essential to the completion of a case under the best rules and regulations that have yet been devised may be had, and yet the claim admitted be fraudulent. The fraud must be looked for behind the papers themselves and on the ground where they were prepared.

In his reports for 1872 and 1873 Commissioner Baker called attention to the defects of the *ex parte* system. The following is quoted from page 12 of the latter report:

The principal weakness of the system consists, as was then stated (referring to his report for 1872), in accepting as a basis of adjudication *ex parte* affidavits, which the Government has no power to sift by cross-examination, while at the same time it has no means of research for adverse testimony. In my opinion there can be, under these circumstances, no security to the Government against dishonest claims, and probably the proportion of such claims which will be successfully prosecuted will increase rather than diminish, the dishonest attorneys becoming more skilled and the temptation to frauds becoming greater as the average value of pension is enhanced by the accumulation of arrears and growing liberality of legislation.

Every prediction made by Commissioner Baker has been more than fulfilled.

His successor, Commissioner Atkinson (also appointed by Grant), in his annual report for 1875 (p. 15), speaks plainly and forcibly upon this subject, viz:

The development of frauds of every character in pension claims has assumed such a magnitude as to require the serious attention of Congress. It is impossible in a limited space to present more than a general outline of the usefulness of a well organized special service in the detection and prevention of frauds upon the Government in this class of claims.

From the nature of the system under which the right to pension is determined under existing laws, viz, upon *ex parte* evidence, the successful prosecution of many fraudulent claims can not be prevented, even though the utmost caution be exercised. The lapse of time since the war and the consequent unreliability of parol proof relating to facts and circumstances at this remote date from their occurrence afford the most forcible argument for the adoption of a more thoroughly organized system of adjudicating these claims. By actual test, in cases taken from the files of this office, it is shown that a large percentage of the evidence filed in support of claims for pension are signed and sworn to without being read over to affiants, and without their having a full and proper knowledge of the contents, though accom-

panied with the certificate of the magistrate before whom they are executed that the witnesses have been fully informed of the import; and in numerous instances what is called "manufactured evidence" has been filed by unprincipled claim agents, particularly in cases of colored claimants.

Twenty-six years have been added to the lapse of time referred to by Commissioner Atkinson, and the same conditions exist to-day, though in a more aggravated form. Many attorneys practicing to-day are post-graduates, so to speak, from this Bureau, and they are able to write affidavits in form as to the law and expression as to practice, using every word, phrase, term, sentence, or expression in such affidavits as will meet the demands of the up-to-date rulings and practice. Furthermore, attorneys, as well as others the attorneys may designate, are now authorized and permitted to examine the papers in a case—the medical examinations as well—and from these papers affidavits are drawn up and sent out to be sworn to, in order to make and complete an *ex parte* case. The willing witness is found, and the case is completed, and if, perchance, the experienced examiner detects some inconsistency and calls for a special examination and cross-questioning of the witness or witnesses, the cry goes up that the "spies of the Pension Bureau have been sent out to persecute the claimant." This is the cry of the organization to drive away or intimidate the examiner as well as the Bureau, and thus prevent justice. I have known affidavits to be made here by experienced pension attorneys—adepts, experts in the art—and sent to a claimant, and all completed and filled in with the names of the necessary witnesses, and the jurats filled out and signed, sufficient to make an *ex parte* case—all done without the presence of the witnesses or the notary.

Commissioner Bentley (also appointed by Grant), in his report for 1876 (p. 17), makes the following statement relative to the *ex parte* system of adjudicating pension claims:

It provides for the settlement of claims upon *ex parte* testimony exclusively given by witnesses who are entirely unknown to the office, and whose affidavits are almost universally prepared by claim agents who can receive no compensation for their services unless the claim is allowed. Moreover, the examining surgeon who certifies to the existence, character, and degree of disability is almost universally the neighborhood practitioner, whose professional interest it is to please the claimant at the expense of the Government. So, not only is the door thrown wide open for the perpetration of fraud and deception, but every interest connected with the preparation of the case for adjudication (the claimant, his attorney, and the examining surgeon) is adverse to the Government.

On October 31, 1876, Commissioner Bentley submitted a supplemental report recommending an entirely different method of adjudicating pension claims. This report was forwarded to Congress with the favorable recommendation of the Secretary of the Interior. The system has never been changed, however, and the defects to which he called attention still exist.

In his report of 1878, Commissioner Bentley has much to say upon the question of the ex parte system and the fraudulent practices of attorneys, and the following brief extracts are taken therefrom:

Considering the extraordinary opportunities for the successful prosecution of fraudulent or unmeritorious claims which exist under the present system of adjudication, in connection with the fact that the Commissioner of Pensions has no authority to go out and hunt for fraud, but is limited by the statute to the investigation of such cases only as suspicion attaches to in the usual routine of the office, the investigations of the last year, as well as those of the preceding year, furnish a very suggestive lesson. I am convinced that a great number of persons have been pensioned who had no just title, and that the number of that class is being constantly increased in the settlements which are now going on, and this must continue to be the case until some measure shall be adopted by which the truth of the parol testimony which is offered can be tested. No such test is possible under the present system. (P. 4.)

A comparatively small number of professional claim agents and claim firms at Washington and some other points in the country, through the intervention of sub-agents and by extensive advertising, employing for that purpose in some instances sheets issued in the form of periodical newspapers purporting to be published in the interest of the soldiers, the columns of which contained matter in which apparent anxiety for the soldiers' welfare and appeals to their love of gain were cunningly intermingled, always representing the advertisers as in the enjoyment of special and peculiar facilities for the successful prosecution of claims, and usually adding the suggestion that no charge would be made unless a pension should be obtained.

These methods have withdrawn a large proportion of the pension-claim business from the local resident magistrates and attorneys and concentrated it in the hands of the agents and firms above referred to, whose offices have become great claim bureaus.

Under this system these claim agents and their clients are strangers to each other—the agent having no personal knowledge in relation to the merit of the claim nor of the truthfulness of the testimony which he files in its support is therefore relieved of personal responsibility to the office as to the good faith of the claimant, and has no care to secure a favorable consideration of the claim presented by him; and unmeritorious and fraudulent claims and false testimony have been flooded upon the office to such an extent that almost all claims are alike suspected, and for the protection of the Government the office has been forced to the adoption of very stringent rules to govern the consideration of the cases, and the honest claimant is not unfrequently a sufferer thereby, and he is always a sufferer on account of the delay entailed upon the consideration of his claim by reason of the time consumed in the consideration of the claims which are without merit.

The claim without merit consumes more time in its consideration than does the just one, and for obvious reasons:

First. Even under the most stringent rules the testimony in behalf of a just claim is usually more easily and readily produced than is the testimony in support of the claim which has no merit.

Second. A just claim once established ceases to occupy the time of the office, except upon applications for increase, while the claim without merit not only consumes more time before it is rejected than the meritorious claim before it is allowed, but after rejection very many of that class of claims are called up from time to time for further consideration through members of Congress and others supposed to have influence to secure favorable action. (Page 15.)

Exactly the same methods are pursued to this day and have been ever since. At every effort that is made to protect the Government

that the proposed legal and rightful beneficiaries of the pension laws fought to preserve and give an honest administration, the cry goes abroad that the Bureau is not doing justice to the pension claimants.

In his report for 1879 (p. 5) Commissioner Bentley states:

In connection with the condition of the business of the office, I again refer to the subject of a change of system for settling pension claims, which I have recommended in each of my three preceding annual reports and which you have commended to Congress, more especially by your letter of the 18th of February last, and which I now again recommend.

I will not attempt to recite all the facts nor repeat all the various arguments which have heretofore been urged in condemnation of the present system and in support of the plan which has been recommended as a substitute for it, but content myself with a concise statement of some of the principal objections to and evils of the present system and the more important advantages which it is believed would follow the adoption of the plan proposed.

Besides being cumbersome and expensive, the present system is an open door to the Treasury for the perpetuation of fraud. The affidavits in support of the claims have the same appearance to the officers of the Bureau, whether false or true. The rules which are established in relation to the production of evidence in attempting to exclude the frauds often work a hardship upon the honest claimant. He finds himself, through the death or imperfect recollection of witnesses, or for some other cause, unable to comply with them, is often defeated, while the fraudulent claimant, who will manufacture the necessary testimony to meet them, succeeds in his claim.

The large sum of money which the claimant will receive upon the allowance of his claim, and the ease with which a fraudulent claim may be manufactured, constitute a powerful inducement to dishonest persons to present fraudulent claims, and these occupy the attention of the office in attempting to determine their merits, which ought to be given to the meritorious claims, and thus, by the encouragement of fraudulent claims, the system operates to delay the others to such a degree that in many cases, it results in a practical denial of justice.

Again, in his report for 1880, Commissioner Bentley urged a change in the method of prosecuting pension claims. On page 14 of said report he states:

The necessity of substituting for the present secret ex parte method a plan for taking the testimony in support of the claims before officers of the Government by public proceedings in the neighborhood of the claimant and witnesses becomes more and more urgent as the number of claims, and the amount involved in each case, increases, both to secure an early and just settlement of meritorious claims and to protect the Treasury against fraud.

It is unnecessary to repeat the various considerations which have been urged in support of my former recommendations upon this subject, or to supplement them with the numerous additional suggestions to the same purpose which might be made, and I therefore dismiss the topic with a respectful and earnest recommendation that the attention of Congress be again called to the importance of early legislation of the nature above pointed out.

Then came the arrearages act. The same conditions continue; the same practice prevails, excepting that it has been liberalized. The pensioners have increased from 250,802 in 1880, to 997,735 in 1901. The files of the Bureau not being open to inspection by the public, it is only by accident that impostors are discovered. There being no

system of registration of pensioners, or opportunities for inspection, it is absolutely necessary that the greatest of care should be exercised in placing names upon the rolls to receive the bounty of the Government, as once upon the rolls, the case goes to the storeroom of "admitted files," and is rarely inquired into thereafter, unless it be on application for increase. Claims are admitted against the Government, and judgment rendered payable quarterly for life, on testimony, under the long-standing practice, that would be thrown out, upon objection, in any court in the civilized world.

The next commissioner, Dudley (appointed by President Garfield), grasped the situation, and in his report for 1881 stated conditions plainly that, instead of accomplishing the results expected of it, the act of 1878, referred to above, had been deleterious to both claimants and attorneys:

To claimants, in that the abolishment of the contingency of success and removal of the security to the agents has stimulated many irresponsible persons, who could be of no possible service to the claimants, to invite a general application of soldiers for pension, regardless of disabilities incurred, by which, after filing the claim, they may obtain in advance the legal fee of \$10 and thenceforth abandon the claim, thus incumbering the files of this office and hindering and delaying meritorious claimants; to the agents, by degrading the profession and bringing into disrepute an otherwise legitimate employment. Agents in good standing and well informed in pension law and practice, when their fee depended upon the successful prosecution of the claim, would, and I believe did, examine and scrutinize the merits before risking years of labor, and refused to file cases without merit.

Unpleasant friction between the principal and agent was avoided by the contingent fee and security of payment, because of the identity of interests.

I recommend that Congress reenact the laws in force prior to June 20, 1878, upon this subject, and make such provision as will protect the Department and claimant alike from ignorant and useless agents and protect and assist well-informed and useful ones. (p. 9.)

In the same report Commissioner Dudley commended the administration of his predecessor and stated that it was his hope that the act of 1881, providing for the appointment of special examiners, which had been passed upon the recommendation of Commissioner Bentley, would "to some extent alleviate the difficulties surrounding the ex parte system which had been so long in vogue." Commissioner Dudley recommended that this special-examination service be broadened and extended by the employment of additional examiners with higher salaries. His recommendations were carried out and the system of special examination of cases which he inaugurated is in force to-day.

Again, in 1883, Commissioner Dudley recommended the repeal of the act of June 20, 1878, and stated, on page 14 of his annual report for that year:

The construction which has heretofore been placed upon the act of June 20, 1878, by which agents claim and exact generally their fee in advance, has, I think, oper-

ated to practically exclude from the practice many educated, responsible, and useful attorneys, and has attracted to it many ignorant, unscrupulous, and useless persons, whose only object seems to be, first, to procure applications from soldiers, regardless of merit, to be filed through them, and then, while acting simply as transmitters of the papers, assiduously dun the claimant until the \$10 fee is secured, and thereafter practically abandon the case like a "squeezed orange," preferring rather to seek new victims than to spend time in serving old ones.

On page 25 of the same report he states:

The greatest difficulty encountered by those who are charged with the duty of judicially determining the merits of claims for pension, and deciding questions affecting title thereto, arises, amongst other causes, from the fact that an *ex parte* presentation of the evidence is often given an undue bias by the remote claim agent who prepares it, and the carelessness with which already prepared affidavits are signed by reputable affiants without a full knowledge of their contents. Material facts are thus specifically sworn to, aspiring to prove trivial events (which in the particular case become important and quite material) after a lapse of twenty years, stated in the language of an unknown person, often squarely contradicting the facts disclosed by the record made at the time by those officers whose duty it was to make it from an unprejudiced standpoint. I mention this to call attention to the necessity of a cross-examination of material witnesses who are uncorroborated by or contradict a record made at the time.

Under this able and vigorous soldier-Commissioner many unworthy attorneys were disbarred—about 50 in one day in the city of Washington alone. The atmosphere in and about this part of the system was greatly purified for a time. An investigation was had in response to a resolution of Congress of February 6, 1884. The report of the results is embraced in Executive Document No. 172, Forty-eighth Congress, first session, containing 1,607 pages, showing the most vicious and unscrupulous practices. I regret to say that the power of disciplining attorneys was thereafter, viz, July 4, 1884, taken from the Commissioner of Pensions.

Each of the Commissioners referred to was a Republican, and was interested in seeing that the claimants received the benefits provided by law, and at the same time was interested in seeing that the Treasury was not looted by men who were trading and trafficking in patriotism under the generous soldier sentiment of the country.

The fault lies in the so-called system; it is not with the soldier claimant or his widow; but the system is so faulty that it offers a most inviting field for the enterprising and adventurous claim agent or attorney; it holds out inducement or a premium to those that are willingly persuaded to be dishonest in preparing and filing false claims and fraudulent evidence, in furnishing substitute claimants to personate the soldier—in fact, the system aids and encourages perjury.

Commissioner Black, in his report for 1885, states, on page 14:

Still further, human ingenuity has been exhausted in the attempts at furnishing tests and barriers against claims.

The *ex parte* system of examination is in part responsible for this; but beyond all reason proofs have been required to be piled one on top of another in the vain

attempt to prevent occasional plunder. Those who prosecuted these extended inquiries proceeded upon the vain hypothesis that perjury could be deterred in its march on the Treasury by the same expedients that would retard an honest but mistaken man. And so a vast number of honest claims have been delayed while ingenious rogues have had their way.

In his reports for 1885 and 1886, and again in his report for 1888, Commissioner Black called attention to the disadvantages under which officers of the Bureau labored unless public sentiment condemned the perpetration of frauds upon the Government in the violations of the pension laws, and Commissioner Lochren, in his report for 1895, complained of popular rancor against the officers of the Government whose investigations secured the conviction of those who violated the pension laws of the United States.

Commissioner Lochren more than once called attention to the evils of the present system. The following brief extracts are from his report for the year 1894 (p. 7):

But the special-examination division, aided as it is by the law division, constitutes the main protection which the Government has against fraud and imposition. Most of the pension attorneys and claim agents are capable and honorable; but some among them are the most dishonest and unscrupulous of men, dealing habitually in perjury, forgery, and every species of fraud and falsehood. Without such special examiners the villainy of such men would operate without check or fear of detection and be generally successful, as it is too often now in spite of all safeguards.

Such men attract the unworthy as clients—the bounty jumpers, cowards, and deserters, and the fraudulent malingerers. As many of their crimes are discovered, their fraudulent cases overthrown, and themselves and their guilty confederates brought to deserved punishment by the work of special examiners (there were 194 convictions for pension frauds last year), it is but natural that such men and their clients should be loud and unceasing in decrying special examiners as spies, and seeking, with the aid of unscrupulous partisan newspapers and politicians, to create a prejudice against special examiners in the minds of deserving pensioners and others. The worthy and deserving soldiers are still modest, and in the race for pensions are elbowed to the rear by the unworthy, who are as truculent in their continued strife for pensions and increases as when operating for bounties. They crowd themselves to the front at soldiers' gatherings with clamor for resolutions for more pensions and denunciations of every regulation tending to unmask or prevent dishonesty and fraud as "unfriendly to the soldier." Their insatiable greed and detestations of all regulations made to insure honesty and restrain or discover fraud, shamelessly proclaimed, has done much to lower the regard which would otherwise be universally manifested for the deserving soldiers.

Politically, the last two Commissioners quoted were Democrats. They were ex-Union soldiers, and there were none with better war records. All of these Commissioners I have quoted were men of high character and ability. They were conscious of their duty as sworn officers of the United States and had the courage to call attention to conditions which confronted them and which rendered that duty extremely difficult to perform.

Attention is invited to that part of the report of the chief of the law division which deals with the conditions existing at San Francisco,

Cal., for a statement illustrating the actual operations of the present system and the methods employed by a certain class of attorneys before this Bureau. A system that will encourage and permit such drumming, soliciting, persuading, and practically compelling the filing of claims through the operations of subattorneys, agents, solicitors, drummers, and "grafters," crying aloud the special privileges or advantages enjoyed by their respective principals, and holding out permanent incomes in the shape of large pensions as the sure result of applications therefor, is faulty in the extreme.

Much has been written and much has been said upon the subject of attorneys or claim agents practicing before this Bureau; but, as already stated, many of them are good men and honorable attorneys; many are not, and the system encourages and favors the latter.

Whenever there is an attorney employed in a case the Bureau conducts its correspondence in the case with said attorney. The Bureau is dependent upon the attorney to correctly advise the claimant, and the claimant naturally looks to his attorney for counsel and advice. Yet the Commissioner of Pensions is powerless to exercise any direct controlling influence over the army of attorneys with whom he corresponds, and the larger army of less responsible subagents, solicitors, and "grafters" in their employ. It is not difficult to imagine the honeycomb of misinformation, prejudice, imposition, and fraud which an unscrupulous attorney will inject into a case, and the pernicious influence he will exert, especially upon the ignorant, to further his ends in mulcting the Government and client. My predecessors have complained of the clamorings and denunciations of unworthy men, even using organizations and newspapers to create prejudice against Government officers who dare to uncover the fraudulent practices which come to their attention. Commissioner Lochren, commenting on this condition of affairs in his report for 1894, stated:

Their insatiable greed and detestation of all regulations made to insure honesty and restrain fraud, shamelessly proclaimed, has done much to lower the regard which would otherwise be universally manifested for the deserving soldiers.

Under the most favorable circumstances the Commissioner of Pensions would have great difficulty in restraining in any way a shrewd but irresponsible attorney, but the difficulty is increased by the fact that since 1884 the Commissioner has had no power to discipline any attorney, no matter what the offense might be. His power is confined to the institution of disbarment proceedings and the presentation of the matter, with a recommendation, but with the subsequent disposition of the case he has nothing to do. As a result, the Bureau as a tribunal is not able to enforce the respect due from those who practice before it. When it suits the purpose of a certain class of attorneys, they not only fail to aid the Bureau in adjudicating claims,

but, instead, they misinform claimants and disseminate false statements calculated to bring the Bureau and its officers into disrepute among their clients.

One attorney with a large practice supplemented an impudent letter to the present Commissioner of Pensions with "open" letters in the newspaper containing false and scurrilous statements denunciatory of the present administration and of the Commissioner of Pensions personally. This correspondence was next incorporated into a pamphlet intended for distribution before Senators and Representatives in Congress and other officials of the Government. He then addressed letters to other attorneys requesting contributions to aid in this effort to bring into disrepute the tribunal before which he is allowed to practice.

Such men in their attacks upon the Bureau always pose as the true friends of the soldier, but their schemes are not always for the benefit of the claimants.

For instance, there is now a scheme on foot on the part of certain attorneys to procure from pensioners an additional fee of \$8 for the prosecution of as many as possible of the increase claims which have been granted under the act of June 27, 1890. It had its genesis in the office of an attorney who has given this Bureau much trouble. The following is a copy of a letter which is being sent to attorneys practicing before this Bureau:

DEAR SIR: I understand that you are a pension attorney. As such, during the past ten years, you have been paid \$2 as fee in "increase" cases. I believe that a fee of \$10 can be obtained in a large number of such cases. If you desire the same, and desire my services in the matter, execute and return the inclosed papers at once. The agreements are signed in duplicate. You keep one and return the other to me with the assignment. Of course, the papers explain themselves. The assignment must be witnessed by two persons who can write, and executed before a magistrate authorized to administer oaths.

Please let me hear from you immediately.

Very respectfully,

— — —

WASHINGTON, D. C., *August 14, 1901.*

Accompanying this letter is a blank power of attorney and assignment, which is intended to be executed by the party to whom it is sent, in which he assigns to this attorney all his right, title, and interest in and to an attorney fee of \$10 in each case noted on a list of cases to be filed with the Commissioner of Pensions, and articles of agreement by which the party of the first part agrees to pay to the party of the second part one-half of the amount of fees collected by the party of the second part over and above the \$2 fee heretofore paid.

The latest enactment of Congress having any reference to fees in increase claims is the act of March 3, 1891, and ever since its passage the fee paid for prosecuting a claim for increase of pension under the act of June 27, 1890, has been limited to \$2. This practice is based upon an obvious construction of the law which is sustained by a long

line of decisions by the Department. It is, therefore, by no means clear in what manner it is proposed to mulct the pensioners for additional fees of \$8 in that class of cases.

Moreover, the services of an attorney in these increase claims is usually very slight, often involving the preparation of only one paper, viz, the declaration, and the attorneys have made no protest to the amount of fees paid them; but if the promoters of the enterprise referred to are successful in their efforts and the scheme works as intended additional fees not contemplated by attorneys and the claimants when the cases were prosecuted will have to be paid. It is difficult to accurately estimate the amount of fees involved, because some increase cases would not be affected by this raid even if successful; but making allowance for a number of cases prosecuted by claimants without the aid of attorneys the fees paid for the prosecution of those cases which, under the act of June 27, 1890, have been increased approximate \$2,000,000 upon the original allowances and \$400,000 upon the increase allowances, and the success of the scheme would mean that the fees in the increase claims would be increased to the amount of the fees in the original claims, in as many cases as are affected by it, and might mean an additional draft of nearly a million dollars upon the pensioners.

Amount paid by the Bureau as fees to attorneys for the years 1891 to 1901, inclusive, and deducted from pensioners upon first payment of pension.

1891	\$2,769,200.70	1898	\$730,019.36
1892	3,112,321.60	1899	476,969.61
1893	1,872,178.53	1900	517,376.32
1894	622,775.25	1901	591,245.22
1895	581,648.28		
1896	557,721.96	Total	12,425,805.00
1897	594,348.19		

Would it not be practicable to adopt a system (in view of the possibilities of the future) that would relieve the pensioner of the payment of an attorney's fee?

MEDICAL ADJUDICATION OF CLAIMS.

MEDICAL EXAMINATIONS AND PRACTICE UNDER PRESENT SYSTEM.

During the past year there were 227,880 orders issued for medical examinations.

There were returned because of the failure of the claimants to appear 29,449, and there were 431 certificates rejected. This would leave apparently 198,000 medical examinations had. The average cost of each medical examination is about \$5. It is estimated that the medical examinations for the year will cost not less than \$950,000. Congress made an appropriation of \$700,000, showing a deficiency of

\$250,000. Exact figures can not be had at this time, or until all the reports of examinations are received at the Bureau from the 1,385 boards (3 members each) and 357 single surgeons, and the accounts audited.

The system is unsatisfactory in results, and your Commissioner, like his predecessors for many years past, is without authority to remedy it.

I have the honor to invite your attention to an extract from the Annual Report of the Commissioner of Pensions when the pension system was in its infancy as compared with the present.

Commissioner Baker, appointed in 1871 by President Grant, in his report for the year 1872, said:

The maximum of invalid claims filed was reached in 1866, immediately upon the close of the war. * * * The claims presented during and immediately after the close of the war were chiefly for wounds or injuries received or disease which disabled the soldier from returning to his accustomed vocation in civil life, while those made in later years are largely on account of disease which developed to a disabling extent some time after his return from the Army, and are of somewhat doubtful origin. * * * The maximum of widows', minors', and dependent relatives' claims was reached in 1865, and the ratio of decrease since then has been exceedingly regular. * * * It is not probable that any causes will operate to materially reduce the rolls or the expenditures during the next four years, while more liberal legislation may increase both; and it is safe to predict that the amount required for pensioners for several years to come will approximate, if not exceed, \$30,000,000 annually. We have reached the apex of the mountain, but it presents a plain of considerable extent, where there will be little fluctuation for several years.

“We have reached the apex of the mountain.”

There were more original pensions allowed (account of civil-war service) during the fiscal year just closed than were claims filed for original invalid pensions during the four years 1872, 1873, 1874, and 1875. Claims continue to be filed alleging disabilities of service origin and in line of duty. The average army invalid pension was then \$90.26 per annum, and navy \$94.23 per annum. It must be remembered that the rates given then covered all amputations, loss of limbs, and the well-defined disabilities of service origin and no other. The purchasing power of the dollar then was much less than at present. The average annual pension for last year under this system was \$168.67, showing its increased liberality, including all grades of disabilities.

Commissioner Baker further states, same year, pages 11 and 12—

The certificates of the examining surgeons constitute the basis of the adjudication of claims, and practically amount to vouchers for the disbursement of the pension appropriation, and it has been the constant aim of the Office to impress this fact upon the surgeons, and thus to secure greater care and caution upon their part. Particularly was this true as to claims for increase, the number of which, for various reasons, has been very much augmented during the year. * * * A constant and urgent pressure is brought to bear upon the Office in this class of cases for the allowance of

the increase rate, and the sympathies of the examining surgeon and adjusting officers doubtless too frequently induce them to allow this increase in many cases not strictly within the intent of the law. * * * There can be no doubt that the supervision of the certificates of examination of the surgeons and the adjudication of both invalid and widows' claims by competent and educated medical officers within the Office has been productive of great good and of large saving. I have therefore to earnestly renew the recommendation of my last report concerning the legislation necessary to insure the employment of skilled surgeons in the medical division.

And upon page 14, same report:

* * * It might be well also, in this connection, to respectfully suggest for the consideration of Congress whether some better system might not be devised radically or substantially changing the whole method of determining the right to pension, more especially as affecting the dependent class.

The pension item has become one of the largest in the financial budget. It may be stated in round number at \$30,000,000 per annum, a sum so large that its expenditure should rest upon a system containing more of the elements of protection to the Government than can be found in the laws now controlling the action of the Pension Bureau.

As a general proposition, alleged fraud must be sought for behind the papers presented establishing a case, and on the ground where they were prepared. To meet this condition of things it has been suggested that resident United States commissioners be clothed with power to examine and determine such cases as may be deemed necessary.

It is believed, however, that persons so determining the right of pension should not be subject to local influences. The extent of such influences upon pension cases has been found by experience to be of a most serious character. It has been held that a special court might be established by Congressional authority, which could hold terms in the various Congressional districts, and so as to afford the Government an opportunity of cross-examination in all cases manifestly requiring it. The expense of such a court would be more than borne by a sum much less than is now expended by compulsion of law in attorney's fees. By this system, the employment of an attorney could in almost all cases be wholly dispensed with.

It is fair that I should say to you that there has been none of the reforms suggested herein carried into effect. While the practice has been liberalized, the service has grown and expanded from about \$30,000,000, with 232,229 names on the rolls, to \$138,531,000, with 997,735 names on the rolls.

Following Commissioner Baker, Commissioner Atkinson, in his report for the year 1875, said:

During the past year it was found necessary to return for correction a large percentage of the certificates of examining surgeons forwarded to this office, the defect in a majority of cases being the want of an intelligent and particular description of the disability found. When the number of changes made in the roster of surgeons during that time is taken into consideration, the cause of these deficiencies is readily observed. Though the surgeon may be thorough and competent to make the examination, it is only after practical knowledge of the requirements of the office that he is able to describe the condition of the applicant in such manner as is necessary for an intelligent adjudication of his claim for pension.

The effort to secure thorough examinations and carefully constructed reports has been unrelaxed. The same is true in regard to the appointment of examining surgeons. So far as possible, men of high professional standing have been sought; but

with all the precautions taken it appears to be impossible to secure such medical examinations and certificates, under the present system, as are desirable for a proper adjustment of claims before this office.

Numerous instances have occurred where incompetent surgeons have been imposed upon the office, no means being at hand to test their qualifications before appointment. In other instances claim agents have secured their appointment by means of petitions to Members of Congress, thereby placing the examining surgeons under obligation to give biased ratings of disabilities, favorable to their clients.

One of the chief sources of delay in the adjudication of claims for invalid pension results from incomplete description of the disability in the certificate of examination, requiring their return for amendment, and these certificates are often not returned to the office at all, or are retained by the surgeon for weeks and months. Where these abuses have occurred they have been remedied as far as possible by the dismissal of the offender.

While it gives me pleasure to bear witness to the faithfulness and ability of many of the examining surgeons, yet great improvement might be made in the system and manner of their appointment.

The position of examining surgeon in many localities is not sufficiently remunerative to induce surgeons of high professional character and extensive experience to accept the appointment. Even if the fees for examinations were increased so as to command the best talent, it is believed that local prejudices and influences would operate to render it almost an impossibility to secure perfectly fair examinations in all cases. A surgeon dependent upon a community for his practice, and especially when subjected—as must nearly always be the case—to powerful rivalry, is dependent upon the opinion of his neighbors. Particularly will he be influenced by the wounded and diseased survivors of the war, who in all communities are objects of sympathy, and this influence, though perhaps imperceptible to the surgeon, who may be perfectly conscientious in the performance of duty, must necessarily to some extent bias his judgment of the degree of disability found to exist, and give color to his report to this office.

Every condition stated has existed since and exists now. The number of examining surgeons June 30, 1875, was 1,491, and the number June 30, 1901, was 4,512. The number of medical examinations ordered for the first year was 24,494, and the number last year was 227,880.

Commissioner Bentley, in his report for the year 1876, says:

It provides for the settlement of claims upon *ex parte* testimony exclusively, given by witnesses who are entirely unknown to the office, and whose affidavits are almost universally prepared by claim agents who can receive no compensation for their services unless the claim is allowed. Moreover, the examining surgeon who certifies to the existence, character, and degree of disability is, almost universally, the neighborhood practitioner, whose professional interest it is to please the claimant at the expense of the Government. So, not only is the door thrown wide open for the perpetration of fraud and deception, but every interest connected with the preparation of the case for adjudication—the claimant, his attorney, and the examining surgeon—is adverse to the Government. A mere statement of the substance and character of the present system would, it would seem, be enough to condemn it for the class of cases we now have, without any statement of its practical workings as known to the office. * * * It is not thought that absolute justice will be attainable in all cases, whatever the character of the system may be, but common sense and common experience justify the belief that a system reasonably calculated to

elicit a fair and impartial presentation of the existing facts in the various cases will better subserve the ends of justice and of honest claimants than one of an opposite character.

* * * In place of the present system, under which the claims are established by ex parte affidavits, generally framed by the claimant's attorney, of persons unknown to the office, and by the certificates of examining surgeons, whose relations to the claimant as the neighborhood practitioner, constitutes a powerful temptation to unduly favor him, a system should be adopted which will give to the office an opportunity to closely question both the claimant and his principal witnesses, and secure medical examinations by skilled surgeons who have no interest adverse to the Government.

Twenty-five years have passed; the same conditions have continued that were pointed out in 1876, and the best of commissioners have wearied in seeking relief.

This statement is so plain, truthful, and forcible, taken in connection with the following from the same Commissioner the same year, covering conditions then:

* * * The medical establishment of the office, so far as the examining surgeons are concerned, is particularly objectionable. The number of examining surgeons on the 30th day of June last was 1,513. I shall best express my own views in relation to the efficiency of that force and the propriety of longer continuing the present system for the medical examinations by quoting a few passages from a very able and exhaustive paper upon the subject laid before me by Dr. T. B. Hood, the medical referee of the Bureau:

* * *—"In a large proportion of cases it has been extremely difficult or impossible to secure such reports as would permit even an approach to intelligent adjustment of claims. * * *

"I do not believe it is possible to do more to instruct the surgeons than has already been done. * * *

"It is comparatively rare that claim is now made for disability contracted in service. * * * It is therefore essential to any approximation to intelligent action that we have skilled, trained surgeons. But if it were possible to secure experienced and skilled surgeons and to hold them, there would remain the fact that they would be so under local influence as to prejudice their reports in favor of claimants.

"There is in my opinion but one way to escape this difficulty, and that is the employment of surgeons whose relation to the Pension Office shall be what the relation of the army surgeon is to the Surgeon-General's Office."

The medical examinations and judgments in cases are the most difficult as well as the most important branch of the adjudications of the present day. Correct adjudications can be secured only by placing in the hands of a skillful surgeon exact knowledge of the history of the case involved. The proposed system will do this, while the best attainable practice under the present system signally fails in accomplishing it.

The foregoing recommendation was at that time practicable; it was made in the interest of orderly procedure, improved system, and honest service. Only one system of pensioning then existed. Since 1890 there have been two. The evils that existed then have increased and multiplied, as the adjudication of claims on ex parte testimony given by witnesses unknown to the Bureau, "*and whose affidavits are almost universally prepared by claim agents, who can receive no compensation for their service unless the claim is allowed,*" still continues. The temp-

tation has been, and is, too great for human agencies under existing complications.

Commissioner Bentley, in his report for the year 1877, said:

A system should be adopted which will give to the Government an opportunity to closely question both the claimant and his principal witnesses, and secure medical examinations by skilled surgeons who have no interest adverse to the Government.

The most simple and efficient, and at the same time economical, plan which I am able to suggest is as follows: Divide the country into districts of such size, considering both the territory and population, as that one surgeon devoting his whole time to the duties would generally be able to make all the medical examinations in any district which the pension laws might require. Appoint as many highly qualified surgeons as there are districts, with a reasonable annual salary, all to be under the direction of the Commissioner of Pensions; one surgeon to be assigned to each district, subject to be ordered from place to place within the district and to be changed about from one district to another as the emergencies of the service might require. One competent clerk should be sent to each district to act in conjunction with the surgeon, or separately, as his duties and the regulations of the Commissioner of Pensions should from time to time require. These two should constitute a commission on behalf of the Government to make the required medical examinations in any case, and to receive the parol testimony offered in its support; and to that end the claimant, with his principal witnesses, should appear before them and submit themselves to cross-examination on behalf of the Government. If a material witness resides in another district, his testimony should be taken by the commission of that district and forwarded to the commission having the case in hand. When the claimant has furnished all the proof he desires to furnish, and submitted to such examinations as are required, the whole case to be transmitted to the office for final settlement.

This commission may be generally charged with the special investigations in the district.

In case it should be found that work was accumulating in any district faster than the regular commission could dispose of it, a clerk could be detailed from the office for a limited period to aid in bringing it up. This plan is simple, and its methods and details equally simple and direct.

Here Commissioner Bentley reiterated the remarks of Medical Referee Hood, and continues:

In order to secure greater efficiency and perfectly impartial examinations and reports, it is recommended that the laws now in force relative to the appointment of examining surgeons be so modified as to authorize the employment of a number of surgeons at a fixed annual salary, equal in amount to at least the average earnings of first-class physicians, who shall be assigned to certain defined districts into which the country shall be divided, subject to changes of location as the interests of the service may demand. It is believed that 60 will be the number required to perform properly the service designed.

It is not desirable at this time that the present mode of appointment and payment of examining surgeons should be entirely superseded by the appointments herein recommended, but, as far as possible, the examinations be made by the salaried surgeons, which will permit a large reduction in the number and the gradual retirement of those appointed under the present system, their services being required only in such cases where for want of time the salaried surgeons are unable to make the examination without subjecting the claimant for pension to long delay.

I take great pleasure in submitting for your careful consideration the liberal quotations I have made from my honored predecessors,

Commissioners Baker in 1872, Atkinson in 1875, Bentley in 1876 and 1877. These Commissioners were most earnest in their efforts to correct the defects in the then existing system of pensioning (now there are two systems), and to this date no relief. Every fault pointed out then has been preserved and propagated.

The medical examination is the basis of pension—it determines the disability. The same system of securing medical examiners prevails now as thirty-five years ago, and has prevailed. They are frequently changed. They know nothing about the pension laws and are not expected to. They are subjected to no test examination as to their medical skill, and never have been. The system was wrong then, and was known to be wrong.

Since then was the passage of the arrearages act of March 3, 1879. Then came the act of June 27, 1890, the latter adding an additional pensioning system. New conditions have presented themselves from time to time; unscrupulous and designing speculators and traffickers in the generosity of the nation have embarked in the business of pensioning, directly or indirectly, with a view of prejudicing the pensioners and ex-Union soldiers against the Government—often for sinister purposes—to an extent at times that may almost seem threatening. So far as possible it would seem for the good of the service that the friends of pensioning should eliminate all these disturbing causes and change the system when and where practicable, to the end that more reliable results be had, more uniformity, and less cause for complaint.

I have pointed out to you the cost of medical examinations last year—about \$950,000—over one-half of which was nonproductive.

I now do most earnestly recommend, in the light of four years of most careful and painstaking study and effort, as follows:

That to cover the demands presented by my predecessors, which consisted then of pensioning before the arrearages act, before the act of 1890, and before the demands of the Spanish war—to cover all these conditions and demands, and to meet the demands and possibilities of the future—that traveling medical examining boards be constituted, consisting of two skilled medical examiners (who shall be graduates of medicine and surgery, and who shall before entering upon the duties be examined at length by competent medical authorities), one attorney, and one stenographer and typewriter.

I submit as an estimate of the cost per annum of such a board, viz:

2 skilled physicians, at \$1,800 per annum	\$3,600
1 attorney	1,600
1 typewriter and stenographer	1,200
Per diem for subsistence, \$3, for four	4,380
Transportation (average \$1 per day)	1,460
Incidentals	250

Total

12,490

The movements of these traveling boards would be directed from the Bureau; their itinerary would be carefully mapped out, say thirty days in advance; they would meet at the county seat of each county; they would remain there from one to ten days as the demands of the service should require; all applicants from the county for original pension or for increase would be notified, say fifteen or twenty days in advance of the sitting of the board. If it should be a large county, having a large number of applicants to examine, the medical examining board would be given more time, so as to not overtax the examining capacity of the board. If the claim had been satisfactorily established and only a question of increase was at issue, there need only be a medical examination; if it was under the old law, the order would show pensioned disability, and for that the examination would be had; if under the new law, the medical examiners would state the claimant's condition then, as the law provides.

If the claimant has filed for original pension, he appears, is properly identified, and all the facts are gathered by the attorney, there is no mystery about all this; the agents of the bureau (medical and legal) have an opportunity to see the soldier, see his condition, ascertain his disabilities, and that claim would come to the Bureau made up in such shape as would give it credit. The claimant had been identified by the county officials or his neighbors, and not by "John Smith his x mark," who was never heard of before and can never be found thereafter. If after the claimant presents himself before this board and establishes his identity with the service claimed, further proof be required, he may be told then and there what is necessary; if the Bureau finds conflicting evidence it will have the same sources to get at facts that it has now. In the present system the Bureau officials know but few of the attorneys or claim agents, the attorneys or claim agents do not know the claimants or witnesses to any extent, but are energetic in getting all the declarations and evidence possible regardless of reliability, file same, and if the Bureau allows bad claims, fraudulent claims, to claimants who never rendered service, etc., the attorney is innocent and at once denies all responsibility.

It would appear, without going into minute details, and in connection with the plain and forcible statement of facts and recommendations of my predecessors along these same lines, that it is plain that the change to such a system would have many advantages in so many ways that are unnecessary here to enumerate. The present system and practice make it too hard, with too many delays for the deserving claimant for the Government's bounty so generously offered, and too easy for the fraud and impersonator to secure that which was not by law intended for him.

Further, New England, New Jersey, and Delaware have 90 counties; some have many soldiers, some have but few. I am confident five

boards organized as suggested could easily visit each county in the State semiannually, giving good opportunity for all claimants to appear before them.

Cost of five boards would not exceed.....	\$62, 450
New York, 60 counties; Pennsylvania, 67 counties; Ohio, 88 counties (12 boards).....	149, 880
Total (17 boards)	212, 330

Twelve boards could answer all demands in these three States. These States have a considerable over four-tenths of the soldier population.

It is plain to be seen that the cost would be much less under the proposed plan submitted than under the present system, but the cost should not be considered; if it cost twice as much the results would justify the cost by adding regularity, uniformity in pensioning, and restoring confidence.

Further, the estimated cost could be reduced for the reason that the attorneys and stenographers could be furnished from the present office force.

There are many other reasons, too numerous to mention and to enter into an annual report, that could be given, showing the opportunities for improved service by a change of system as to medical examinations.

It is a noticeable fact that in some States the pension payments average much larger than in other States; that some Congressional districts will average larger pensions than other districts in the same State. Equal justice can not be done for the soldier under the present system. Medical examiners are appointed and assigned to duty without any knowledge of the law, and practically without any experience or instruction. Our pensioning is unlike any other business or profession in the world; some get too much, others too little, according to the measure of their disabilities. Tests have been made from time to time to show the unreliability of the very basis of the system of medical examinations that the Bureau employees and officials must base their action upon.

In my annual report for 1898 it was shown where one man was subjected to four test medical examinations practically within twenty-four hours before four different medical examining boards, and he was rated from nothing (0, \$8, \$17, \$24) to \$24 per month, no two of the boards agreeing and all acting under the same instructions.

Recently a medical examining board in one of the larger cities, in reporting upon 32 consecutive examinations, was discovered as having found each claimant afflicted with heart disease, describing 26 as having a "systolic murmur" and 6 with a "diastolic murmur;" otherwise the description might as well, for all intents and purposes, have been

printed. Twelve of these 32 so examined and reported upon were sent before another medical examining board in the same city (composed of three ex-Union soldier surgeons) for test medical examination, this board not knowing the cause or object of the test examination, and no evidence of heart disease was found in either claimant. The medical referee of this Bureau was present, and after the medical examining board had completed its examinations the medical referee examined each applicant and confirmed the findings of the board. Another medical board reported out of 60 consecutive examinations that 59 of the claimants had organic heart disease. Others make specialties of chronic diarrhea, malarial poisoning, piles, or other disabilities.

The impracticability—or impossibility—of making some 1,500 medical examining boards (or the equivalent in number, including single surgeons) understand the necessary demands of the service has long been realized. This would be true even were all examiners equally skilled, which they are not. There are those who are careful in their descriptions as well as ratings. Others may be careless in descriptions, and depend upon ratings to serve the purpose. The varieties are impossible of description. In this there is no desire or disposition to reflect upon the honesty and skill of the medical examiners throughout the country. It is surprising that they do so well under existing conditions.

Heretofore the practice existed that all orders for medical examinations were sent to the attorney to be delivered to the claimant; this seemed to place the medical examining board too much under the attorneys in the way of securing their positions, as well as their tenure of office, and the practice has been changed to the extent of sending the order for examination direct to the claimant. However, it is not an infrequent incident for the attorney to get the orders for medical examination from the claimants and return same to the Bureau requesting that claimants be sent to other boards for examination, this when the local medical examining board does not meet the demands of the attorney.

With forty or fifty medical examining boards, composed of two skilled physicians, one attorney, and one stenographer each, the work could be orderly and systematic; many of the points that would likely be raised in the Bureau in the course of the adjudication of the claim would be largely disposed of then and there by the board, without the many delays incident to an unsatisfactory correspondence at long distance; and in view of the possible demands of the future, effort should be made to strengthen the weak places, that more uniform and satisfactory results may be had.

SUMMARY.

It affords me pleasure to say that much good work has been accomplished by the Bureau during the past year, and the improved methods

and better system instituted in the several divisions will, it is believed, be productive of better results for the future. Careful, diligent, and considerate attention has been given by the respective divisions to the several branches of the work to the end that reliable records and results may be had; monthly inspections of the files of pending claims have been instituted, with the result that many claims are sent forward for adjudication that have been pending a long time, and finally, at the close of the year a large force was assigned from each division to carefully search, inspect, and make a complete inventory of all pending claims, in order that it might be determined what amount of work is before us for the coming year, so that immediate preparation could be made to meet all demands upon the office force in keeping the work of the Bureau current.

It has been the aim of the productive force of the Bureau during the past four years to attain as nearly as possible in the work assigned to it uniformity, system, regularity of methods, and orderly procedure. It is fair to say, however, that a very large percentage of the time of the force engaged in adjudicating claims has necessarily been taken up in the working over of thousands of claims for "rerating" in which there was no title to additional pension under existing laws; also in the consideration of many thousands of claims filed under the act of March 6, 1896, in which no title exists, and therefore no benefit could accrue from the filing of such applications, and many other similar claims where the want of title prevents favorable action; and yet much time and labor must necessarily be consumed in the orderly disposition of such claims and in furnishing full and detailed statements of the action of the Bureau to claimants, attorneys, and others.

I make this statement for your information to show that much of the time taken up in the adjudication of claims is unproductive of pensions or benefits, while on the other hand a very large number of rejections is shown in this class of claims.

It must be remembered that the year just closed covered a national campaign and inauguration, and the Bureau necessarily lost time by reason of the use of the building for the ceremonies connected with the inauguration; hence, all things considered, I think that the result of the year's work or efforts of the Bureau are most gratifying. I shall predict that with existing laws and established practice there will not be nearly so many "original" pensions granted during the present fiscal year for the reason that there are not as many claimants whose claims will be completed during the year. It is fair to say, however, that it will be my earnest effort to keep the work on original claims current, so that immediately upon their completion they will be taken up for adjudication.

It is difficult to predict the possibilities of the future with regard to the filing of original claims for pension by the survivors of the war of

the rebellion. About 45,000 of them now have such claims pending, while it is believed that about 155,000 survivors of that war have never filed an application. Another element of uncertainty will be found in the number of those who had been charged with desertion (121,000), many of whom have been relieved from the charge and thus restored to a pensionable status by legislation.

Last year a bill was introduced in Congress to relieve all those having the charge of desertion against them. Should this become a law it would confer title to pension upon at least 75,000 additional survivors, and upon many dependent relatives.

During the year the army and navy survivors' division, as a division, was abolished and consolidated with the record division, the two divisions naturally belonging together from the class of work assigned to them.

Congress authorizes the employment of 1,740 persons in all the branches of the Bureau service, and this number is generously sufficient to meet all demands of the service. About 25 employees of the Bureau are detailed in other bureaus or branches of the Government service.

The principal officials of the Bureau are men who served in the Union Army. Seventeen of the 18 disbursing agents served in the Union Army; there are 601 ex-Union soldiers and sailors, 64 widows of ex-Union soldiers and sailors, and in addition thereto many sons and daughters of ex-Union soldiers and sailors employed in the Bureau and Bureau service, each and all desirous of doing promptly and generously their duty under the law in giving the full measure of generosity of the Government to its lawful beneficiaries.

In conclusion, I will say that all of the accompanying tables and reports merit careful attention, as they show in detail the operations of the Bureau in all its branches during the year, and they also show that the force of employees has been diligent and zealous in the performance of the important duties imposed upon them. In my efforts to dispose of the work which was in arrears and bring it up to date, and in promoting the interests of the service, I have been cordially seconded by my assistants, and by the chiefs of division, as well as by the employees under their supervision, and I desire to express my gratitude to all for their efforts in producing the gratifying results presented in this report.

Respectfully submitted.

H. CLAY EVANS,
Commissioner.

The SECRETARY OF THE INTERIOR.



SOUTH COURT OF GREAT HALL, PENSION BUILDING.

PENSIONS.

TABLE No. 1.—Number of pensions allowed and increased during the year, with the annual value of all pensions on the rolls.

	Pensions allowed and increased during the year.										Losses to the rolls.			Annual value of pensions as shown by rolls June 30, 1901.			
	Original.		Increase.		Reissue.		Restoration and renewal.		Restoration, renewal, release, and additional to change class.		Loss under one law by allowance.		Names dropped from the rolls, with the annual value in such cases.		Number of pensioners on rolls June 30, 1901.		
	Num-ber.	Annual value.	Num-ber.	Annual value.	Num-ber.	Annual value.	Num-ber.	Annual value.	Num-ber.	Annual value.	Num-ber.	Annual value.	Num-ber.			Annual value.	
(Invalids.....)	562	\$62,276	12,565	\$798,795	1,145	\$59,303	1,084	\$155,190	1,304	\$126,298	5,165	\$2,181,828	10,529	\$2,181,828	293,186	\$60,542,833	
Army, general law.....	25	3,456	1	96									21	3,024	650	96,852	
(Widows, etc.....)	2,988	435,830	59	8,158	77	9,512	217	33,080	168	25,974	3		5,381	820,142	86,513	13,386,911	
(Invalids.....)	91	14,516	128	8,952	55	3,027	34	3,942	5	2,569	49		214	46,126	4,498	811,574	
Navy, general law.....	86	15,168	3	345	3	285	3	482	2				107	20,762	2,298	449,496	
(Widows, etc.....)	2,629	372,177	61	5,459	11	348	6	2,886	1				106	35,867	8,344	494,967	
Army, war with Spain.....	1,192	179,852	13	3,172	62	1,082	3	504					57	8,980	1,981	318,870	
(Widows, etc.....)	166	26,856	7	1,428	5	585	3	216					18	7,185	211	83,221	
Navy, war with Spain.....	48	8,837	1	30	4								8	2,016	68	13,184	
(Widows, etc.....)	18,445	1,557,976	21,784	869,355	718	12,244	2,072	219,724	5,406	96,222	1,446		17,261	2,082,651	422,481	46,382,792	
Army, act June 27, 1890.....	16,084	1,621,470	64	8,020	84	1,272	112	11,920					6,851	761,756	138,490	14,328,250	
(Widows, etc.....)	874	75,417	961	39,049	75	2,430	72	6,522	36	2,044	13		728	83,560	15,633	1,657,362	
Navy, act June 27, 1890.....	576	58,155	8	1,017	3	144	6	576					271	31,590	6,621	670,944	
(Widows, etc.....)																	
Survivors.....																	96
War of 1812.....	3	384	1	156													1
(Widows.....)	15	1,440	240	17,828	1	144	4	480					218	34,224	1,527	220,716	
War with Mexico.....	362	33,892	13	1,080	2		1	96					798	97,012	7,568	911,124	
(Widows.....)	7	676	9	768	1								395	38,280	8,109	792,172	
Indian wars, 1892-1942.....	132	12,702	1	192											291	27,936	1,066
(Widows.....)															392	37,632	3,479
Total.....	44,225	4,430,580	35,939	1,763,350	2,246	90,326	3,567	485,568	6,922	252,107	6,922	6,922	43,586	6,270,521	997,735	131,568,216	

Average annual value of each pension..... \$131.87

Average annual value of each pension on account of war with Spain..... \$168.50

Average annual value of each pension under the general law..... 168.67

Average annual value of each pension under act of June 27, 1890..... 108.09

TABLE No. 2.—Number of pensioners of the various classes added to and dropped from the rolls during the year, with the cause, and the number of each class on the rolls June 30, 1901.

Classes.	Additions to roll during the year.						(Grand total.	Losses to the roll during the year.						Total number of pensioners on the roll June 30, 1901.
	Number of original pensioners enrolled.	Number of renewals and re-enrollments.	Number of pensioners gained by relatives, additional, supplements, etc.	Total number of pensioners added during the year.	By death.	By marriage.		Minors by legal limitation.	By failure to claim.	For other causes.	Total number of pensioners lost to the roll.	Loss under one law by reason of allowance under another law.		
General law.														
Army and Navy	310, 602	653	1, 068	3, 030	10, 079	313, 632	403	201	463	10, 743	5, 214	297, 675		
{Invalids.	646	25	1, 309	3, 030	10, 079	671	18	1	2	21	21	660		
{Nurses	90, 788	3, 074	220	3, 454	4, 201	94, 252	255	827	102	5, 438	3	88, 811		
{Widows, etc.	402, 086	3, 752	1, 288	6, 519	14, 288	408, 555	567	929	567	16, 202	5, 217	387, 136		
Classification of the widows' roll:														
Widows without children	70, 869	1, 681	169	2, 133	2, 524	174, 039	159	200	68	2, 951	2	71, 065		
Minor children	6, 205	635	10	577	75	15, 245	93	13	20	201	1	5, 044		
Mothers	1, 542	373	25	439	10	1, 951	561	94	3	967	1	1, 413		
Fathers	10, 611	151	6	166	1, 287	10, 777	3	19	1	1, 872	1	9, 405		
Brothers, sisters, sons, and daughters.	1, 921	98	4	110	318	2, 051	2	19	1	398	9	1, 653		
{Brothers, sisters, sons, and daughters.	140	36	3	39	7	179	7	19	1	9	9	170		
War with Spain.														
Army and Navy	882	2, 795	9	2, 805	117	3, 687	7	3, 565	8	124	8	3, 555		
{Invalids	873	1, 240	3	1, 243	28	2, 116	1	2, 049	2	63	2	2, 049		
{Widows, etc.	1, 755	4, 035	12	4, 048	145	5, 803	15	5, 604	10	189	10	5, 604		
Classification of the widows' roll:														
Widows without children	199	92	1	93	9	304	2	277	1	26	1	277		
Minor children	292	143	1	144	2	414	10	402	3	12	3	402		
Mothers	327	69	1	89	14	106	3	83	1	21	1	83		
Fathers	38	109	1	109	2	147	2	143	1	3	1	143		

Act June 27, 1890.

Army and Navy	480,657	19,319	2,144	5,442	26,905	457,562	17,127	554	1,028	423	439	17,989	1,459	488,114
{Invalids	135,726	16,610	118		16,728	152,454	4,642			490	408	7,122	221	146,111
{Widows, etc														
Total	566,383	35,929	2,262	5,442	43,633	610,016	21,769	554	1,028	913	847	25,111	1,690	583,225
<i>Classification of the widows' roll:</i>														
Widows without children	104,714	12,231	73		12,304	120,352	3,533	325		404	267	4,529	156	115,667
Widows with children	19,397	3,576	15		3,591	19,654	262	228		27	125	642	40	18,972
Minor children	4,372	776	9		785	6,157	12		1,028	3	5	1,048	4	4,105
Mothers	4,605	1			1	4,606	624	1		29	3	1,557	13	4,036
Fathers	1,966	1			1	1,967	303			27	2	332	6	1,629
Orphan children	672	25	21		46	718	8				6	14	2	702
<i>War of 1812.</i>														
Survivor	1					1								1
Widows	1,742	3			3	1,745	203			14	1	218		1,527
Total	1,743	3			3	1,746	203			14	1	218		1,528
<i>War with Mexico.</i>														
Survivors	8,352	15	4		19	8,371	741			30	17	788	15	7,563
Widows	8,151	352	1		353	8,504	347	13		29	6	395		8,109
Total	16,503	367	5		372	16,875	1,088	13		59	23	1,183	15	15,672
<i>Indian wars, 1832-1842.</i>														
Survivors	1,370	7			7	1,377	282			9		291		1,086
Widows	3,739	132			132	3,871	368	3		14	7	392		3,479
Total	5,109	139			139	5,248	650	3		23	7	683		4,565
Total number of pensioners	993,529	44,225	3,567	6,922	51,714	1,048,243	38,153	853	1,582	1,538	1,460	43,586	6,922	997,735

1 During the year 1,537 widows with children became widows without children by reason of youngest child becoming 16 years of age.
 2 During the year 12 widows with children became widows without children by reason of youngest child becoming 16 years of age.
 3 During the year 3,334 widows with children became widows without children by reason of youngest child becoming 16 years of age.

Total number of minor children included in "Widows with children" and "Minor children" at close of the year: General law, Army, 9,955; Navy, 385. War with Spain, Army, 788; Navy, 39. Act of June 27, 1890, Army, 36,642; Navy, 1,286.
 In the class "Widows, etc.," general law, are included the nine widows and daughters of Revolutionary soldiers whose names appear in Table No. 15 of this report.

TABLE No. 3.—Showing the number and amount of first payments on each class of certificates made during the fiscal year ended June 30, 1901, by pension agents.

Class.	Original.		Increase and re-issue.		Supplemental.		Additional.		Restoration and re-newal.		Total.	
	Num-ber.	Amount.	Num-ber.	Amount.	Num-ber.	Am t.	Num-ber.	Amount.	Num-ber.	Amount.	Num-ber.	Amount.
Army, general law	564	\$210,020.11	13,857	\$1,061,115.40	305	\$49,819.69			1,759	\$241,946.71	16,485	\$1,562,901.91
Invalids	23	2,852.40	2	43.20							25	2,995.60
Nurses	3,018	928,123.44	269	99,114.54	5	405.14			107	26,918.65	3,399	1,052,561.77
Widows, etc	91	19,168.22	171	17,546.57	1	45.40			33	4,866.12	296	41,126.31
Navy, general law	88	17,770.25	15	6,174.24					1	273.67	104	24,216.16
Invalids	2,378	377,426.97	64	8,388.46					3	1,089.87	2,445	386,905.80
Widows, etc	1,210	255,906.57	19	1,234.87							1,229	257,141.44
Army, war with Spain	146	21,117.04	9	797.56					1	35.60	156	21,950.20
Invalids	39	7,141.00	2	12.97							41	7,154.57
Widows, etc	18,979	2,748,194.26	20,326	643,827.59	155	10,114.76	5,465	\$431,072.60	2,416	315,436.10	47,341	4,148,645.31
Army, act of June 27, 1890	15,244	2,057,318.50	83	6,957.29	9	1,579.60			96	18,276.20	15,432	2,084,131.59
Invalids	826	126,528.18	1,000	23,960.27	3	130.13	30	1,918.45	75	8,320.12	1,934	160,867.15
Widows, etc	572	77,924.28	10	515.10					6	111.73	588	78,551.11
War of 1812	2	426.67	2	117.37							4	544.04
War with Mexico	21	14,636.14	227	5,942.22					6	1,391.07	254	21,969.43
Survivors	329	47,464.48	13	750.28					7	2,663.93	349	50,878.69
Widows	8	3,810.28	7	223.87							15	4,034.16
Indian wars, 1832-1842	119	27,830.21	4	366.60							123	28,196.81
Survivors	43,657	6,941,759.60	36,080	1,877,088.40	478	62,094.72	5,495	432,991.05	4,510	620,829.77	90,220	9,984,763.54
Widows	37,534	6,307,465.97	35,657	2,427,621.66							82,300	9,828,525.07
Number and amount of first payments during fiscal year ended June 30, 1900												
			Fiscal year ended June 30, 1901.								Fiscal year ended June 30, 1901.	
		\$591,245.22	\$517,376.32			14,846	1,478,386.82				8310.79	\$250.43
Fees deducted from pensions and paid to attorneys...												
At the close of the year there remained unpaid 10,109 cases of all classes, on which the first payments then due amounted to		878,170.26	1,291,588.68								175.35	148.63
Average value of first payments in all original cases during the year		159.01	168.06								140.65	158.58

¹ Includes supplemental certificates and payments thereon.

Average value of first payments in original general law cases during the year.....
 Average value of first payments in original cases, war with Spain, during the year.....
 Average value of first payments in original cases, act June 27, 1890, during the year.....

PENSIONS.

TABLE No. 4.—Showing the appropriations for pensions and the disbursements on account thereof for the fiscal year ended June 30, 1901, and unexpended balances at the close of the year.

Items of appropriation.	Appropriations.			Disbursements.				Balances.		
	Amount appropriated act April 4, 1900.	Repayments to the appropriation.	Total.	Amount disbursed by United States pension agents.	Amount disbursed by Treasury settlements.	Total amount disbursed.	Balance remaining in the hands of United States pension agents June 30, 1901.	Balance remaining in the United States Treasury June 30, 1901.	Available balance June 30, 1901.	
Army pensions	\$139,500,000	\$3,375.19	\$139,503,375.19	\$134,622,967.01	\$120,853.80	\$134,743,790.81	\$1,622,853.47	\$3,136,730.91	\$4,759,584.38	
Navy pensions	4,500,000	98.82	4,500,098.82	3,782,202.73	5,490.30	3,787,693.03	122,797.27	589,603.52	712,400.79	
Fees of examining surgeons, pensions	700,000	42.00	700,042.00	661,626.58	28.00	661,654.58	38,376.42	11.00	38,387.42	
Salaries, pension agents	72,000	.....	72,000.00	72,000.00	.....	72,000.00	.....	.....	.....
Clerk hire, pension agencies	430,000	7.53	430,007.53	412,520.21	.....	412,520.21	10,214.79	7,272.53	17,487.82
Rents, pension agencies	12,480	.....	12,480.00	11,855.00	.....	11,855.00	125.00	500.00	625.00
Fuel, pension agencies	250	.....	250.00	163.61	.....	163.61	11.39	75.00	86.39
Lights, pension agencies	500	.....	500.00	72.10	.....	72.10	2.90	425.00	427.90
Contingent expenses, pension agencies	30,000	8.67	30,008.67	18,834.74	10,447.28	29,282.02	720.51	6.14	726.65	
Total	145,245,230	8,527.21	145,248,757.21	139,582,231.98	136,799.38	139,719,031.36	1,795,101.75	3,784,624.10	5,529,725.85	

In addition to the above there was disbursed during the fiscal year ended June 30, 1901, the following sum, chargeable to the appropriation for the fiscal year ended June 30, 1900: Fees of examining surgeons, pensions, \$152,606.02. Of the amount, \$3,787,693.03, disbursed for navy pensions, \$337,966.09 was paid from navy pension fund under act April 4, 1900.

TABLE No. 5.—Amount disbursed at United States pension agencies during the fiscal year ended June 30, 1901, as shown by accounts current.

Agency.	Army pensions.										Navy pen- sions.	Grand total.
	Pensions.	Fees of exam- ining sur- geons, pensioners.	Salaries.	Clerk hire.	Rents.	Fuel.	Lights.	Contingent expenses.	Total.			
Augusta.....	\$2,307,782.46		\$4,000.00	\$8,215.00				\$500.00	\$2,320,497.46			\$2,320,497.46
Boston.....	6,468,748.70		4,000.00	24,616.55				762.45	6,488,127.70		\$831,308.62	7,319,431.82
Buffalo.....	6,370,244.72		4,000.00	20,301.08	\$1,000.00			1,094.35	6,396,640.15			6,396,640.15
Chicago.....	9,788,460.70		4,000.00	80,945.09				1,140.54	9,774,546.83		754,707.17	10,529,253.60
Columbus.....	16,064,668.87		4,000.00	87,772.69				902.68	16,127,944.19			16,127,944.19
Concord.....	2,781,187.06		4,000.00	7,919.39				214.00	2,743,320.45			2,743,320.45
Des Moines.....	7,789,281.19		4,000.00	23,249.36				687.70	7,817,168.25			7,817,168.25
Detroit.....	6,650,138.19		4,000.00	19,160.88				751.67	6,674,045.19			6,674,045.19
Indianapolis.....	10,309,068.40		4,000.00	28,466.15	2,800.00			861.86	10,844,721.40			10,844,721.40
Knoxville.....	8,178,864.23		4,000.00	23,748.75				1,125.00	8,202,737.98			8,202,737.98
Louisville.....	4,025,877.81		4,000.00	12,139.07				783.61	4,042,449.99			4,042,449.99
Milwaukee.....	7,068,423.89		4,000.00	22,056.56				1,800.00	7,120,779.85			7,120,779.85
New York.....	6,168,717.08		4,000.00	24,046.86	4,600.00			1,499.68	6,197,763.61		720,177.72	6,917,941.83
Philadelphia.....	7,308,171.62		4,000.00	27,892.52				1,031.06	7,335,965.20		507,059.82	7,842,654.62
Pittsburg.....	6,506,654.06		4,000.00	20,719.21				2,096.53	6,532,469.80			6,532,469.80
San Francisco.....	4,596,928.47		4,000.00	14,243.74	1,300.00			577.65	4,617,097.11		187,616.68	4,804,713.79
Topeka.....	16,068,817.75		4,000.00	40,078.64	1,875.00			1,674.61	16,132,946.00			16,132,946.00
Washington.....	6,735,204.81	\$661,626.58	4,000.00	27,449.23	1,390.00			1,981.41	7,431,778.49		781,388.22	8,213,116.71
Total.....	134,622,967.01	661,626.58	72,000.00	412,520.21	11,855.00	168.61	72.10	18,884.74	135,800,029.25		3,782,202.73	139,582,231.98

In addition to the above, there was disbursed during the fiscal year ended June 30, 1901, the following sum chargeable to the appropriation for the fiscal year ended June 30, 1900: Fees of examining surgeons, pensioners, \$182,608.02.

PENSIONS.

TABLE No. 6.—Statement of amount paid for pensions under the general law.

Agency.	Army pensions.				Navy pensions.			Grand total.
	Invalids.	Nurses.	Widows and others.	Total.	Invalids.	Widows and others.	Total.	
Augusta.....	\$1,470,058.13	\$1,044.00	\$391,541.79	\$1,862,643.92	.....	.....	.....	\$1,862,643.92
Boston.....	2,088,362.81	7,661.20	961,869.36	3,057,393.37	\$204,892.96	\$106,435.50	\$311,328.46	3,368,721.83
Buffalo.....	2,724,373.67	3,024.00	854,273.02	3,581,670.69	.....	.....	.....	3,581,670.69
Chicago.....	4,051,304.37	9,905.20	1,132,023.77	5,193,233.34	179,047.05	62,726.58	241,773.63	5,435,006.97
Columbus.....	6,527,541.56	7,508.80	1,659,912.33	8,204,963.19	.....	.....	.....	8,204,963.19
Concord.....	1,434,703.52	720.00	402,331.66	1,837,755.18	.....	.....	.....	1,837,755.18
Des Moines.....	3,497,365.97	8,157.20	655,553.36	4,161,077.15	.....	.....	.....	4,161,077.15
Detroit.....	3,274,627.23	2,807.60	661,559.81	3,938,994.64	.....	.....	.....	3,938,994.64
Indianapolis.....	5,924,669.82	3,830.40	1,240,305.75	7,168,805.97	.....	.....	.....	7,168,805.97
Knoxville.....	1,840,714.17	5,304.00	611,829.10	2,457,847.27	.....	.....	.....	2,457,847.27
Louisville.....	1,351,304.54	1,584.00	478,493.29	1,831,381.83	.....	.....	.....	1,831,381.83
Milwaukee.....	3,097,894.92	3,902.40	650,472.24	3,752,269.56	.....	.....	.....	3,752,269.56
New York.....	1,791,564.09	4,616.00	816,362.99	2,612,543.08	184,093.83	87,455.32	271,549.15	2,884,312.23
Philadelphia.....	2,068,271.73	4,974.80	790,379.99	2,863,626.52	119,071.19	61,387.69	180,458.88	3,044,265.40
Pittsburg.....	2,154,380.73	1,461.20	598,100.69	2,753,942.62	.....	.....	.....	2,753,942.62
San Francisco.....	1,421,825.33	7,977.60	278,133.86	1,707,936.51	41,156.93	10,893.27	52,049.20	1,759,985.71
Topeka.....	5,515,897.69	10,192.40	1,128,783.33	6,652,874.02	.....	.....	.....	6,652,874.02
Washington.....	2,227,094.47	12,466.80	694,768.31	2,934,329.58	161,278.04	125,087.54	286,365.58	3,220,695.66
Total.....	52,461,954.75	97,137.60	14,014,616.59	66,573,708.94	899,539.00	453,985.90	1,353,524.90	67,927,233.84

REPORT OF THE SECRETARY OF THE INTERIOR.

TABLE No. 7.—Statement showing the amount paid for pensions on account of the war with Spain.

Agency.	Army pensions.			Navy pensions.			Grand total.
	Invalids.	Widows and others.	Total.	Invalids.	Widows and others.	Total.	
Augusta.....	\$4,371.39	\$4,018.80	\$8,390.19				\$8,390.19
Boston.....	29,690.85	43,826.20	73,416.55	\$5,258.07	\$2,026.80	\$7,284.87	80,701.42
Chicago.....	26,712.69	28,074.53	56,787.22	4,904.70	722.40	5,627.10	62,414.32
Columbus.....	59,386.03	33,170.93	92,556.96				92,556.96
Concord.....	8,182.04	6,758.00	14,940.04				14,940.04
Des Moines.....	35,293.85	19,583.88	54,827.73				54,827.73
Detroit.....	27,947.46	27,146.20	55,093.68				55,093.68
Indianapolis.....	35,486.49	15,690.92	51,177.41				51,177.41
Knoxville.....	64,237.89	55,287.95	119,525.84				119,525.84
Louisville.....	18,692.01	14,464.60	33,156.61				33,156.61
Milwaukee.....	35,163.66	24,777.68	59,941.34				59,941.34
New York.....	58,169.91	65,863.22	123,533.13	8,771.80	3,458.70	12,230.50	135,763.63
Philadelphia.....	37,174.69	38,617.95	75,792.64	3,893.60	2,046.76	5,460.36	81,253.00
San Francisco.....	61,923.24	19,710.22	81,633.46	7,184.89	1,986.14	9,171.03	90,804.49
Topeka.....	78,286.83	32,781.80	111,067.63				111,067.63
Washington.....	61,696.99	47,692.30	109,389.29	8,192.14	6,080.04	14,222.18	123,611.47
Total.....	644,315.04	476,914.68	1,121,229.72	37,705.20	16,290.84	53,996.04	1,175,225.76

PENSIONS.

TABLE No. 8.—Statement of amount paid for pensions under the act of June 27, 1890.

Agency.	Army pensions.			Navy pensions.			Grand total.
	Invalids.	Widows and others.	Total.	Invalids.	Widows and others.	Total.	
Augusta.....	\$707, 852. 35	\$210, 284. 80	\$917, 637. 15				\$917, 637. 15
Boston.....	2, 179, 374. 73	1, 115, 421. 39	3, 294, 796. 12	\$347, 884. 87	\$164, 805. 42	\$512, 690. 29	3, 807, 486. 41
Buffalo.....	2, 104, 600. 07	650, 505. 69	2, 755, 105. 76				2, 755, 105. 76
Chicago.....	3, 312, 611. 05	1, 026, 488. 94	4, 339, 099. 99	407, 001. 68	100, 804. 76	507, 806. 44	4, 846, 406. 43
Columbus.....	5, 287, 776. 95	1, 414, 479. 51	6, 702, 256. 46				6, 702, 256. 46
Concord.....	647, 326. 72	218, 086. 05	865, 412. 77				865, 412. 77
Dea Moines.....	2, 867, 815. 00	638, 129. 56	3, 505, 944. 56				3, 505, 944. 56
Petroit.....	2, 104, 277. 08	521, 949. 93	2, 626, 227. 01				2, 626, 227. 01
Indianapolis.....	2, 247, 681. 12	750, 181. 88	2, 997, 863. 00				2, 997, 863. 00
Knoxville.....	3, 442, 811. 95	1, 210, 010. 83	4, 652, 822. 78				4, 652, 822. 78
Louisville.....	1, 482, 274. 04	578, 989. 32	2, 061, 263. 36				2, 061, 263. 36
Milwaukee.....	2, 638, 006. 75	603, 557. 07	3, 241, 563. 82				3, 241, 563. 82
New York.....	2, 099, 168. 24	1, 268, 941. 82	3, 366, 110. 06	308, 547. 78	177, 850. 29	486, 398. 07	3, 852, 508. 13
Philadelphia.....	3, 023, 448. 03	1, 290, 365. 04	4, 313, 813. 07	204, 373. 53	116, 766. 55	321, 140. 08	4, 634, 953. 15
Pittsburg.....	2, 862, 518. 71	862, 297. 40	3, 724, 816. 11				3, 724, 816. 11
San Francisco.....	2, 142, 569. 31	435, 991. 53	2, 578, 560. 84	105, 276. 85	21, 119. 60	126, 396. 45	2, 704, 957. 29
Topeka.....	7, 229, 241. 58	1, 822, 117. 43	9, 051, 359. 01				9, 051, 359. 01
Washington.....	2, 710, 015. 58	834, 151. 71	3, 544, 167. 29	347, 140. 21	133, 610. 25	480, 750. 46	4, 024, 917. 75
Total.....	49, 086, 849. 26	15, 449, 950. 10	64, 536, 799. 36	1, 720, 224. 92	714, 456. 87	2, 434, 681. 79	66, 973, 481. 15

TABLE No. 9.—Statement showing amounts paid for pensions to the survivors and widows of the war of 1812 since 1871; of the war with Mexico since 1857, and of the Indian wars since 1859.

Fiscal year.	War of 1812.			War with Mexico.			Indian wars, 1832-1842.		
	Survivors.	Widows.	Total disbursements.	Survivors.	Widows.	Total disbursements.	Survivors.	Widows.	Total disbursements.
1871 (from Feb. 14, 1871).....	\$2,555.05	\$511.00	\$3,066.05						
1872.....	1,977,415.84	335,993.63	2,313,409.47						
1873.....	2,078,606.96	689,303.59	2,767,910.57						
1874.....	1,588,832.95	616,016.40	2,204,849.35						
1875.....	1,555,599.86	583,000.21	1,998,600.07						
1876.....	1,989,037.18	445,772.95	1,534,810.13						
1877.....	934,657.82	361,548.91	1,296,206.73						
1878 (from Mar. 9, 1878).....	768,918.47	294,572.05	1,063,490.52						
1879.....	1,014,525.66	2,192,699.54	3,207,225.20						
1880.....	790,710.39	2,658,058.14	3,448,768.53						
1881.....	621,612.80	2,381,800.95	3,003,413.75						
1882.....	478,274.85	2,024,207.63	2,502,482.48						
1883.....	357,334.81	1,882,542.41	2,239,877.22						
1884.....	278,888.85	1,686,302.09	1,965,190.94						
1885.....	207,782.80	1,518,202.39	1,725,985.19						
1886.....	144,389.59	1,458,896.44	1,603,286.03						
1887.....	105,837.01	1,765,582.36	1,871,419.37	\$53,148.68	\$2,458.08	\$55,606.76			
1888.....	73,659.48	1,596,604.96	1,670,264.44	1,861,756.07	583,056.28	2,444,812.35			
1889.....	62,800.27	1,397,487.09	1,450,287.36	1,796,899.30	693,572.45	2,490,471.75			
1890.....	38,847.09	1,263,239.37	1,302,086.46	1,728,027.54	695,054.90	2,423,082.44			
1891.....	22,504.64	1,040,294.41	1,062,799.05	1,622,114.75	695,314.52	2,317,429.27			
1892.....	11,908.93	827,040.53	838,949.46	1,425,258.18	686,733.57	2,111,991.75			
1893.....	10,494.27	721,060.32	731,554.59	1,396,392.38	736,173.41	2,132,565.79	\$158,076.26	\$66,434.05	\$224,510.31
1894.....	6,312.20	645,297.46	650,609.66	1,388,707.07	803,345.91	2,192,052.96	877,883.57	456,652.25	834,535.82
1895.....	3,848.27	541,923.48	545,771.75	1,433,690.86	802,032.96	2,235,723.82	308,366.24	469,161.89	777,528.13
1896.....	1,972.27	456,847.61	458,819.88	1,368,685.96	814,096.14	2,182,782.09	268,778.30	468,694.44	737,472.74
1897.....	1,440.00	388,291.95	389,731.95	1,279,198.31	818,563.78	2,097,762.09	227,580.41	442,092.76	669,673.17
1898.....	791.06	347,070.15	347,861.21	1,213,508.63	846,560.26	2,060,068.89	189,981.89	418,997.85	608,978.74
1899.....	193.33	298,097.48	298,290.81	1,107,594.63	819,067.58	1,925,662.21	165,327.01	408,871.74	569,198.75
1900.....	96.00	248,912.67	249,008.67	1,011,563.74	804,308.31	1,815,872.05	138,142.82	379,085.07	517,177.89
1901.....		210,760.04	210,856.04	921,052.18	794,320.27	1,715,372.45	111,973.91	351,016.59	462,990.50
Total.....	14,018,679.72	30,822,968.21	44,841,647.93	19,607,528.27	10,593,658.42	30,201,186.69	1,946,108.91	3,455,945.64	5,402,054.55

TABLE No. 10.—Classified statement of the number of pensioners on the rolls of each agency compared with the number on the rolls, etc.—Concluded.

Location of agency.	War of 1812.		War with Mexico.		Indian war, 1832-1842.		Number of pensioners on rolls June 30, 1901.	Number of pensioners on rolls June 30, 1900.	Increase by agencies during year 1901.	Decrease by agencies during year 1901.
	Survivors.	Widows.	Survivors.	Widows.	Survivors.	Widows.				
Topeka	81		1,081	1,044	67	188	115,765	115,177	588	
Columbus.....	121		301	316	3	14	103,597	103,815		218
Chicago.....	61		501	614	52	209	75,572	74,694	878	
Indianapolis.....	61		358	407	8	22	67,028	66,794	234	
Philadelphia.....	52		162	268	8	19	63,329	63,845		16
Knoxville	362		2,107	2,795	843	2,745	60,939	60,167	772	
Boston.....	74		76	110	4	20	57,435	56,947	488	
Des Moines.....	34		291	229	11	45	55,025	54,645	380	
Washington.....	195		451	540	13	47	53,543	52,865	678	
New York.....	83		202	250	7	17	53,211	52,890	321	
Milwaukee.....	26		154	133	11	32	50,804	50,670	134	
Pittsburg.....	41		81	115	2	4	48,654	48,700		46
Buffalo.....	1	117	75	81	3	6	47,264	47,563		299
Detroit.....	34		103	107	3	10	43,999	44,195		196
San Francisco.....	21		1,257	689	37	65	35,796	34,813	983	
Louisville.....	52		367	416	8	27	28,706	28,815		109
Augusta.....	64		34	39	3	9	18,813	18,929		116
Concord.....	48		27	26	3		18,255	18,505		250
Total.....	1	1,527	7,568	8,109	1,086	3,479	997,735	998,529	5,456	1,250
Increase.....							4,206			
Decrease.....		215	784	42	284	260				

PENSIONS.

TABLE No. 11.—Statement showing disbursements for pensions, fees of examining surgeons, cost of disbursement, salaries, and other expenses of the Pension Bureau, and the number of pensioners on the rolls each year since July 1, 1865.

Fiscal year.	Disbursements for pensions.		Fees of examining surgeons.	Cost of disbursement, maintaining pension agencies.	Pension Bureau.		Number of pensioners on rolls.
	Army.	Navy.			Salaries.	Other expenses.	
1866							
1867	815,158,698.64	\$291,951.24	284,588.26	1,155,000.00	\$237,165.00	\$71,000.00	128,722
1868	20,527,188.76	291,841.22	64,539.50	1,155,000.00	306,851.49	217,615.86	155,473
1869	22,163,828.84	300,825.61	75,547.00	1,155,000.00	386,194.20	311,934.14	169,648
1870	26,048,227.04	308,251.78	116,737.00	216,212.86	338,690.31	43,519.50	187,983
1871	28,048,542.41	487,250.21	232,595.87	437,373.51	338,690.31	11,125.00	198,696
1872	28,276,927.02	487,825.78	282,068.82	487,825.78	372,378.97	58,980.00	207,498
1873	26,603,159.24	479,584.98	482,181.76	487,825.78	436,315.71	57,587.78	203,189
1874	28,722,104.76	603,619.76	482,181.76	487,825.78	456,021.26	90,855.89	238,411
1875	27,417,309.18	543,800.00	447,074.79	447,074.79	444,052.24	75,048.72	236,241
1876	27,659,481.72	524,900.00	445,276.05	447,074.79	464,821.21	73,799.35	234,821
1877	26,251,725.91	524,900.00	284,588.26	445,276.05	468,577.08	67,102.88	232,184
1878	33,109,839.92	555,089.00	284,588.26	313,194.87	445,276.08	81,240.90	232,998
1879	58,901,670.42	855,089.00	116,737.00	208,851.24	438,255.70	54,088.70	242,755
1880	49,419,992.05	787,558.66	232,595.87	221,295.00	582,517.64	55,035.68	250,802
1882	53,828,192.05	1,183,500.00	282,595.87	224,644.37	686,585.45	46,462.19	288,890
1884	59,468,610.70	984,980.00	341,186.49	284,630.29	668,113.92	50,981.85	293,657
1885	54,945,115.25	967,272.22	482,181.76	303,430.61	1,723,285.68	241,555.88	303,658
1886	63,034,642.90	1,288,760.89	492,714.76	284,724.14	1,946,725.45	588,522.42	322,756
1887	77,712,789.27	1,237,712.42	1,106,824.92	294,724.14	1,986,027.55	511,492.12	345,125
1888	86,995,502.15	1,846,218.48	895,677.62	305,430.61	1,948,599.66	480,195.91	365,783
1889	108,809,250.89	2,265,000.00	787,391.72	268,109.87	1,986,027.55	420,776.24	406,007
1890	114,744,750.83	2,567,989.67	1,640,988.76	273,872.20	1,978,725.45	422,554.50	489,725
1891	158,914,611.76	3,479,535.35	1,640,988.76	380,840.14	2,801,721.80	377,560.74	676,160
1892	188,045,460.94	3,461,177.00	1,640,988.76	500,122.02	2,494,122.87	178,823.44	876,668
1893	186,495,965.61	3,490,760.56	1,657,697.47	519,262.92	2,494,122.87	280,788.67	969,012
1894	184,682,173.88	3,650,980.48	1,679,678.50	517,439.87	2,408,622.75	370,844.69	970,524
1895	184,682,173.88	3,650,980.48	1,679,678.50	563,449.86	2,408,622.75	504,912.52	969,544
1896	186,832,173.88	3,685,802.71	1,679,678.50	563,449.86	2,268,959.35	494,800.90	970,678
1897	186,318,914.64	3,727,531.06	1,679,678.50	572,439.47	2,268,959.35	474,350.52	976,014
1898	140,924,848.71	3,727,531.06	1,007,688.76	522,496.40	2,254,571.81	465,905.63	981,714
1899	134,671,258.68	3,683,794.27	1,007,688.76	522,496.40	2,116,542.55	436,854.23	988,529
1900	134,700,597.24	3,761,633.41	844,262.60	525,862.64	2,116,542.55	379,646.70	997,785
1901	134,748,790.81	3,787,698.08	844,262.60	525,862.64	2,116,542.55	379,646.70	997,785
Total	2,608,004,258.68	58,900,380.60	17,375,192.13	13,140,983.73	48,686,646.50	8,610,616.60	.....

¹ Approximate.

The disbursement of \$879,646.70 on account of "Other expenses" of Pension Bureau includes \$67,400.93 for stationery, printing and binding, repairs to Pension building and contingent expenses. The statement of years prior to 1899 does not include these items. The disbursement on account of Army and Navy pensions from July 1, 1790, to June 30, 1866, is \$96,446,444.23.

TABLE No. 12.—Original pension claims filed and allowed each year since July 1, 1861.

Fiscal year ended June 30—	General law.				Act of June 27, 1890.				War of 1812.			
	Applications filed.		Claims allowed.		Applications filed.		Claims allowed.		Applications filed.		Claims allowed.	
	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Survivors.	Widows.	Survivors.	Widows.
1862	1,422	1,065	413	49								
1863	26,670	22,662	4,121	3,763								
1864	20,648	32,951	17,041	22,446								
1865	27,754	44,830	15,212	24,959								
1866	36,149	23,107	22,883	27,284								
1867	16,165	20,698	16,589	19,883								
1868	7,462	13,306	9,460	19,461								
1869	11,325	14,741	7,292	15,904								
1870	13,251	11,600	5,721	12,500								
1871	9,027	9,127	7,934	8,244								
1872	9,697	6,853	6,468	7,244								
1873	8,976	6,567	6,651	4,073								
1874	9,530	6,754	6,837	3,152								
1875	12,238	5,472	5,760	4,736								
1876	16,803	5,394	7,292	3,861								
1877	19,112	6,792	7,414	3,379								
1878	37,484	9,982	7,242	3,379								
1879	112,084	26,161	10,176	4,455								
1880	18,970	10,752	21,394	3,920								
1882	29,476	10,560	22,846	3,999								
1883	35,816	12,129	32,014	5,303								
1884	29,633	11,533	27,414	6,366								
1885	28,684	11,834	27,580	7,743								
1886	36,064	13,503	31,837	8,610								
1887	37,320	16,097	35,283	11,217								
1888	48,716	18,871	35,843	10,816								
1889	53,464	24,176	36,830	11,924								
1890	73,732	29,153	50,395	14,654								
1891	21,923	18,111	41,391	11,914								
1892	18,174	16,169	17,876	7,287								
1893	9,867	12,358	10,232	7,295								
1894	6,653	8,788	6,129	4,225								
1895	4,650	7,572	5,415	6,627								
1896	2,292	6,865	3,864	3,912								
1897	2,897	6,897	3,726	4,339								
1898	2,684	7,331	3,741	19,612								
1899	1,836	6,441	1,975	8,460								
1900	2,753	7,563	1,690	10,739								
1901	2,251	7,563	1,126	13,749								
Total	880,583	542,294	567,647	385,273	861,076	357,762	470,850	197,872	84,943	45,255	25,713	35,483

PENSIONS.

TABLE No. 12.—Original pension claims filed and allowed each year since July 1, 1861—Concluded.

Fiscal year ended June 30—	War with Mexico.				Indian wars, 1832-1842.				War with Spain.				Army nurses.		Total number appli- cations filed.	Total number pension claims allowed.
	Applications filed.		Claims allowed.		Applications filed.		Claims allowed.		Applications filed.		Claims allowed.		Applica- tions filed.	Claims allowed.		
	Surviv- ors.	Widows.	Surviv- ors.	Widows.	Surviv- ors.	Widows.	Surviv- ors.	Widows, etc.	Inva- lids.	Widows, etc.	Inva- lids.	Widows, etc.				
1862															2,487	662
1863															49,352	7,694
1864															58,689	39,467
1865															72,694	40,171
1866															66,286	60,177
1867															86,733	86,462
1868															20,768	28,921
1869															26,066	23,196
1870															24,831	18,231
1871															38,969	36,062
1872															18,933	16,062
1873															16,784	10,462
1874															23,523	11,192
1875															22,445	9,877
1876															44,957	11,892
1877															57,118	31,846
1878															31,166	19,845
1879															40,689	27,664
1880															41,758	38,192
1881															40,865	46,487
1882															72,726	56,994
1883															63,220	60,952
1884															105,041	61,627
1885															896,941	66,667
1886															346,688	156,486
1887															221,637	221,637
1888															119,361	121,630
1889															57,101	83,085
1890															45,301	39,186
1891															42,214	49,374
1892															50,545	50,704
1893															48,732	59,648
1894															58,831	87,677
1895															51,964	61,645
1896															58,373	44,868
1897															2,824,411	1,701,904
1898															1,724	2,128
Total	25,229	16,409	20,613	12,365	5,416	8,111	5,700	39,861	5,768	3,721	2,128	1,240	712	2,824,411	1,701,904	

TABLE NO. 13.—Statement showing the number of pensioners in each State and Territory of the United States, each insular possession, and each foreign country on the rolls June 30, 1901, and the amount paid for pensions during the fiscal year 1901 in each State and Territory, each insular possession, and each foreign country.

	Number.	Amount.		Number.	Amount.
UNITED STATES.			FOREIGN COUNTRIES— concluded.		
Alabama	3,672	\$496,926.04	Australia	47	\$6,797.85
Alaska	78	10,515.13	Austria-Hungary	32	4,432.17
Arizona	737	109,835.77	Azores	6	491.00
Arkansas	10,947	1,381,907.92	Bahamas	3	235.00
California	19,279	2,625,816.30	Belgium	13	1,324.94
Colorado	8,134	944,025.64	Bermudas	3	306.53
Connecticut	11,919	1,388,562.90	Bolivia	1	.....
Delaware	2,743	384,521.45	Brazil	5	902.00
District of Columbia	8,771	1,392,080.02	British Guiana	1	72.00
Florida	3,077	415,680.60	Canada	2,274	319,224.13
Georgia	3,378	483,075.56	Chile	11	1,567.47
Idaho	1,598	216,626.82	China	12	1,925.00
Illinois	70,481	9,757,003.69	Comoro Islands	1	240.00
Indiana	66,974	10,291,896.75	Costa Rica	6	635.20
Indian Territory	2,925	364,295.58	Cuba	50	7,094.62
Iowa	37,908	5,481,092.20	Cyprus	1	72.00
Kansas	41,083	6,061,054.90	Danish West Indies	1	96.00
Kentucky	28,740	4,045,726.08	Denmark	33	4,682.55
Louisiana	5,998	885,788.28	Dutch West Indies	3	408.00
Maine	19,358	2,954,668.43	Ecuador	2	309.00
Maryland	13,067	1,706,347.83	England	339	47,633.31
Massachusetts	39,473	5,163,429.70	Egypt	1	96.00
Michigan	44,050	6,653,101.55	France	64	8,983.33
Minnesota	16,541	2,297,970.21	Germany	607	85,210.67
Mississippi	4,403	649,232.53	Greece	7	991.67
Missouri	53,738	7,169,934.06	Guatemala	2	278.00
Montana	1,707	220,196.41	Honduras	3	672.00
Nebraska	17,530	2,414,213.11	Hongkong	8	804.00
Nevada	282	35,037.33	India	7	816.50
New Hampshire	8,971	1,301,832.82	Ireland	423	59,390.73
New Jersey	20,159	2,402,039.56	Ile of Man	3	372.00
New Mexico	1,755	263,950.49	Italy	38	5,334.44
New York	88,794	11,931,376.89	Japan	10	1,822.50
North Carolina	4,001	523,231.30	Liberia	10	1,943.00
North Dakota	1,875	235,858.55	Madeira	6	840.00
Ohio	104,301	15,211,127.38	Malta	2	288.00
Oklahoma	7,867	1,027,718.38	Mauritius	1	72.00
Oregon	5,470	749,310.44	Mexico	126	17,968.63
Pennsylvania	104,845	13,378,371.37	Netherlands	10	1,809.80
Rhode Island	4,775	566,000.15	Newfoundland	7	1,008.80
South Carolina	1,846	254,502.91	New Zealand	6	684.00
South Dakota	5,120	525,325.01	Nicaragua	4	357.80
Tennessee	13,274	2,550,814.07	Norway	45	6,317.10
Texas	8,282	1,080,493.69	Paraguay	2	1,799.07
Utah	869	118,256.64	Peru	6	996.27
Vermont	9,194	1,414,748.07	Portugal	1	54.00
Virginia	9,455	1,326,022.07	Russia	13	1,874.23
Washington	6,928	925,125.27	Samoa	1	48.00
West Virginia	12,811	1,772,376.98	San Salvador	1	.....
Wisconsin	27,317	4,136,723.12	Scotland	110	15,441.81
Wyoming	726	116,914.75	Seychelles Island	2	252.00
Total	993,116	137,753,685.20	South Africa	1	.....
INSULAR POSSESSIONS.			Spain	6	798.00
Hawaii	47	6,805.09	St. Helena	1	144.00
Philippine Islands	19	2,709.80	Sweden	49	6,862.73
Porto Rico	6	798.00	Switzerland	72	10,109.37
Total	72	10,312.89	Turkey	6	892.40
FOREIGN COUNTRIES.			United States of Colombia	2	126.00
Argentina	7	2,523.33	Uruguay	3	474.00
			Venezuela	2	60.00
			Wales	12	1,324.60
			West Indies	14	2,184.00
			Total	4,547	641,161.65

SUMMARY.

	Pensioners.	Payments.
Pensioners residing in States and Territories and payments to them	993,116	\$137,753,685.20
Pensioners residing in insular possessions and payments to them	72	10,312.89
Pensioners residing in foreign countries and payments to them	4,547	641,161.65
Total	997,735	138,405,159.74
Payments by Treasury Department (Treasury settlements)		126,324.10
Total payments on account of army and navy pensions		138,581,483.84

TABLE No. 14.—Statement showing, by classes, the different monthly rates paid under the general law to pensioners, and the number at each rate on the rolls June 30, 1901.

Rate.	Invalids.			Widows, etc.			Rate.	Invalids.			Widows, etc.		
	Army.	Navy	Total.	Army.	Navy	Total.		Army.	Navy	Total.	Army.	Navy	Total.
\$2.00	2	3	5				\$24.75	1	1				
4.00	5	4	9				25.00	2,342	62	2,404	716	130	846
5.00		8	8				25.25	1	1				
6.00	49,539	899	50,438				25.50	4	2	6			
6.25	14		14				25.75	1	1				
6.37½	2		2				26.00	6	6				
6.75	1		1				26.25	2	2				
7.00	44		44				26.50		5	5			
7.50	271	16	287				26.75	1	1				
7.75	6		6				27.00	896	27	923			
8.00	41,001	618	41,619	1,578	36	1,614	27.50	5	5	10			
8.25	10		10				28.00		3	3			
8.50	370		370				28.25	1	1				
8.62½	1		1				28.50	3	3				
8.75	5		5				28.75	1	1				
9.00	282	1	283				29.00		3	3			
9.25	8		8				30.00	14,971	235	15,206	668	194	862
9.50	10	5	15				30.50	1	1				
9.75	4	1	5				30.75	1	1				
10.00	26,387	459	26,846	3	3	6	31.00		3	3			
10.20	1		1				31.25	21	21				
10.25	12	1	13				32.00			2	1	1	
10.50	9	5	14				32.50	2	2				
10.62½	1		1				32.75	1	1				
10.75		3	3				33.00	1	1	2			
11.00	50	6	56				33.50		3	3			
11.25	179	7	186				34.00		4	4			
11.37½	3		3				34.50		3	3			
11.50	14	3	17				35.00	3	5	8	4	4	8
11.75	6	3	9				35.50		3	3			
12.00	43,919	522	44,441	76,775	1,597	78,372	36.00	2,457	34	2,491			
12.25	17		17				36.50	2	2				
12.50	85	22	107				36.75	1	1				
12.75	296	1	297				37.00	2	2				
13.00	356	5	361				37.50	6	6		1	1	
13.25	8	2	10				37.68	1	1				
13.37½	4		4				38.18	1	1				
13.50	18	1	19				38.50	1	1				
13.75	11	1	12				39.00	1	1				
14.00	22,127	199	22,326	4		4	40.00	88	3	91	17	10	27
14.25	13	1	14				40.25	1	1				
14.50	2	4	6				40.50	2	2				
14.75	4		4				41.00	4	4				
15.00	2,179	82	2,261	1,416	107	1,523	42.00	1	1		1	1	
15.25	3		3				42.50	1	1				
15.50	7	1	8				43.50	2	2				
15.75	1		1				44.00	2	2				
16.00	10,890	106	10,996		1	1	44.50	1	1				
16.25	6		6				45.00	2,062	16	2,078	2		2
16.50	17	6	23				45.50	1	1				
16.75	14		14				46.00	1	1				
17.00	38,745	355	39,100	2,504	7	2,511	46.50	2	2				
17.25	2	1	3				47.00	4	4				
17.50	14	21	35				48.00	1	1				
17.75	4		4				49.00	2	1	3			
18.00	715	20	735	55	1	56	50.00	1,151	22	1,173	103	58	156
18.25	2		2				52.00		1	1			
18.50	9	7	16				53.00	1	1				
18.75	77		77				55.00	1	1				
19.00	9	8	17				57.00	1	1				
19.25	8		8				58.00		1	1			
19.50		5	5				60.00	16		16			
20.00	4,328	119	4,447	2,624	152	2,776	62.00	1	1				
20.50	1	9	10				63.50	1	1				
21.00	6	7	13				72.00	1,952	59	2,011		1	1
21.18		1	1				75.00	1	1		7		7
21.25	3	9	12				82.50		1	1			
21.50	1	3	4				88.00		1	1			
22.00	2,575	77	2,652	2		2	100.00	19	3	22	13	2	15
22.50	65	9	74				166.66½				4		4
23.00	1	9	10				208.33½				1		1
23.25	3	1	4				416.66½				2		2
23.50		8	8										
23.75	1		1				Total.	293,186	4,489	297,675	86,513	2,296	88,811
24.00	22,404	261	22,665	12		12	1900	306,980	4,622	310,602	88,474	2,314	90,788
24.50	1	3	4										

In addition to the rates specified in the class "Widows, etc.," \$2 per month is paid on account of each of 10,340 children. (See Table No. 2, Classification of widows' general-law roll, titles "Widows with children" and "Minor children.")

The Army invalid cases reported in this table at less than \$6 per month are cases in which the pensions were allowed for periods prior to March 2, 1895, but were not paid before the close of the fiscal year.

The Navy invalid cases at less than \$6 per month are similar to the Army invalid cases, or are rates fixed by the honorable the Secretary of the Navy, under sections 4756 and 4757, Revised Statutes (act of March 2, 1867), on account of either ten or twenty years' service in the United States Navy.

TABLE No. 14a.—Statement showing by classes, the different monthly rates paid under the act of June 27, 1890, to pensioners, and the number at each rate on the rolls June 30, 1901.

Rate.	Invalids.			Widows, etc.		
	Army.	Navy.	Total.	Army.	Navy.	Total.
\$6.00	100,268	4,576	104,834			
7.00	4		4			
8.00	133,327	4,966	138,293	132,413	6,487	138,900
10.00	37,055	1,397	38,452	2	2	4
12.00	151,572	4,645	156,217	5,996	126	6,122
12.50		2	2			
13.00		1	1			
14.00	1	1	2	3		3
15.00	4	6	10	7	1	8
16.00	3		3		1	1
17.00	12	2	14	15		15
18.00	3		4			
19.75		1	1			
20.00	28	1	29	27	3	30
20.50		2	2			
21.00		1	1			
21.25		1	1			
21.50		1	1			
21.75		1	1			
22.00		2	2	2		2
22.50		1	1			
22.75		1	1			
23.50		1	1			
24.00	64	4	68	3		3
24.50		1	1			
25.00	8		8	7	1	8
26.00		1	1			
27.00		2	2			
28.00		2	2			
28.50		1	1			
29.00		1	1			
30.00	100	3	103	14		14
35.00	2		2	1		1
36.00	9		9			
37.00		1	1			
38.00		2	2			
40.00	16	2	18			
47.00		1	1			
50.00	15	1	16			
52.50		1	1			
Total	422,481	15,633	438,114	138,490	6,621	145,111
1900	415,265	15,392	430,657	129,412	6,314	135,726

In addition to the rates specified in the class "Widows, etc." \$2 per month is paid on account of each of 33,227 children. See Table No. 2, classification of widows' roll, act of June 27, 1890, titles "Widows with children, minor children, and helpless children."

The invalid cases reported in this table at rates greater than \$12 per month are those allowed jointly under the act of June 27, 1890, and on account of either ten or twenty years' service in the Navy, under sections 4756 and 4757, Revised Statutes (act of March 2, 1867) or by special acts of Congress.

The rates in the cases of army and navy widows, etc., in excess of \$8 per month are those of dependent relatives and permanently helpless children, formerly pensioned under the general law as minor children and allowed under special acts of Congress.

TABLE No. 14b.—Statement showing, by classes, the different monthly rates paid on account of war of 1812, war with Mexico, Indian wars 1832-1842, war with Spain, and to nurses employed during the war of the rebellion.

Rate.	War of 1812.			War with Mexico.			Indian wars, 1832-1842.			War with Spain.						Army nurses.	
	Survivors.	Widows.	Total.	Survivors.	Widows.	Total.	Survivors.	Widows.	Total.	Invalids.			Widows, etc.				
										Army.	Navy.	Total.	Army.	Navy.	Total.		
\$6.00											1,169	71	1,240				
6.25											1		1				
7.50											6	4	10				
7.75											1		1				
8.00	1	2	3	8,899	8,069	11,968	1,066	3,472	4,538		570	24	594		6	6	1
8.50											4		4				
10.00											360	25	385				
11.25											3		3				
12.00		1,516	1,516	3,603	26	3,629	10	3	13		351	19	370	1,811	51	1,862	625
12.50											1	2	3				
12.75											84	2	86				
14.00											14	1	15		24	3	27
15.00					2			1	1	1	15		15				1
16.00		2	2	8	2	10	1				1		1				
17.00											304	21	325		44		44
17.50											1	1	2				
18.00		1	1	2	1	3					1		1				
20.00		3	3	34	5	39	9	2	11		16	1	17	45	1	46	5
20.50													1				
21.25													1				
22.00											4	1	5				
22.50											1		1				
24.00				2		2		1	1	118	10	128					3
25.00		3	3	8	1	9				4	2	6	23	9	32	15	
26.00											2	1	3				
27.00											1		1				
30.00				7	3	10				217	16	233	16	2	18		
35.00													2	1	3		
35.18											1	1					
36.00										42	1	43					
40.00													3		3		
45.00				1		1				8	1	9					
50.00				1		1				23	3	26	6	1	7		
72.00				1		1				26		26					
75.00													1		1		
Total.	1	1,527	1,528	7,568	8,109	15,677	1,066	3,479	4,565	3,344	211	3,555	1,981	68	2,049	650	
1900...	1	1,742	1,743	8,352	8,151	16,503	1,370	3,739	5,109	822	60	882	845	28	873	646	

Rates in excess of \$12 per month in cases of widows of war of 1812, survivors war with Mexico, and in excess of \$8 per month in cases of widows, war with Mexico, and survivors and widows Indian wars relate to cases in which the rates were fixed by special act of Congress. Rates other than \$12 per month in the cases of nurses were fixed by special acts of Congress.

In addition to the rates specified in the class "Widows, etc.," war with Spain, \$2 per month are paid on account of each of 827 children. See Table No. 2, classification of widows' roll, war with Spain, titles "Widows with children," and "Minor children."

TABLE No. 15.—Names of surviving widows and daughters of Revolutionary soldiers on the pension rolls June 30, 1901, with their ages and places of residence.

Name.	Age.	Name of soldier.	Service.	Town.	State.
Barrett, Hannah Newell. ¹	101	Harrod, Noah	Massachusetts	Boston	Massachusetts.
Chadwick, Susannah ¹	86	Chadwick, Ellhu	New Jersey	Emporium	Pennsylvania.
Damon, Esther S.	87	Damon, Noah	Massachusetts	Plymouth Union	Vermont.
Hurlbutt, Sarah C. ¹	83	Weeks, Elijah	do	Little Marsh	Pennsylvania.
Jones, Nancy	87	Darling, James	North Carolina	Jonesboro	Tennessee.
Mayo, Rebecca	88	Mayo, Stephen	Virginia	Newbern	Virginia.
Snead, Mary	85	Snead, Bowdoin	do	Parksey	Do.
Thompson, Rhoda Augusta. ¹	80	Thompson, Thaddeus.	New York	Woodbury	Connecticut.
Tuller, Augusta ¹		Way, Isaac	Connecticut	Bridgeport	Do.

¹ Daughter; pensioned by special act.

Hiram Cronk, who served with the troops from New York, is the only surviving pensioned soldier of the war of 1812. He is 101 years of age, and resides at Ava, Oneida County, N. Y.

Daniel F. Bakeman, the last survivor of the war of the Revolution, was born in Schoharie County, N. Y., September 28, 1759; died in Freedom, Cattaraugus County, N. Y., April 5 1869, aged 109 years 6 months and 8 days.

TABLE NO. 16.—Report of pension certificates issued in the fiscal year ended June 30, 1901.

	General law.																	Totals under general law.					
	Originals.										Increases.	Reissues.	Restorations and renewsals.	Restorations and renewsals to change claims.	Duplicatae.	Accrueds.							
	Army invalids, war of rebellion.	Army widows, war of rebellion.	Navy invalids, war of rebellion.	Navy widows, war of rebellion.	Army invalids, war with Spain.	Army widows, war with Spain.	Navy invalids, war with Spain.	Navy widows, war with Spain.	Total originals under general law.	Army invalids, war of rebellion.													
1900.																							
July	57	225	2	10	139	188	5	4	630	677	98	94	108	94	338	2,024							
August	61	309	9	9	144	127	4	5	668	1,278	141	164	164	46	483	2,944							
September ..	51	240	4	7	140	105	2	11	560	765	81	91	114	76	333	2,020							
October	45	256	13	11	204	102	10	1	642	1,469	141	113	199	90	487	3,141							
November	37	208	9	7	163	101	10	3	538	922	98	55	131	79	386	2,244							
December	28	174	7		155	62	9	1	436	643	56	72	88	42	423	1,766							
1901.																							
January	31	238	6	11	223	86	17	4	616	1,102	111	125	156	94	456	2,660							
February	38	219	11	7	207	90	17	5	594	635	98	96	92	88	415	2,018							
March	62	255	9	6	209	82	23	5	651	1,008	99	105	107	66	410	2,441							
April	44	246	7	6	320	102	20	4	749	1,159	163	86	75	83	607	2,322							
May	46	275	7	9	323	65	25	3	753	1,388	144	105	95	107	632	3,324							
June	62	336	7	3	402	82	24	2	918	1,796	147	154	151	101	729	3,996							
Total.	562	2,981	91	86	2,629	1,192	166	48	7,775	12,827	1,362	1,300	1,480	956	5,699	31,389							
	Other laws.																						
	Originals.										Increases.				Restorations, renewals, and reissues.		Totals under other laws.						
	War of 1812.		Indian wars.		Old wars.		Mexican war.		Act of Aug. 5, 1892 (nurses). Nurse. War with Spain. (Special act).	Totals of originals under other laws.	War of 1812 (widows).		Indian wars (survivors).		Indian wars (widows).			Mexican war (survivors).		Mexican war (widows).			
	Survivors.	Widows.	Survivors.	Widows.	Invalids.	Widows.	Survivors.	Widows.			Survivors.	Widows.	Survivors.	Widows.	Survivors.	Widows.		Survivors.	Widows.	Survivors.	Widows.	Survivors.	Widows.
1900.																							
July			1	3			2	26	5	31								1		10	32	90	
August			1	13		1	2	31	3	34								1		4	38	107	
September ..			1	14			33	33	1	34								1		4	38	99	
October			1	18			33	33		33								1		10	54	157	
November				9			2	35	1	47								1		6	43	127	
December				9			1	16		26										4	17	67	
1901.																							
January			2	11		1	2	44	2	62		1	1	17	2	14	4	1	1	6	53	138	
February				10			1	17	1	18		2	29	2	27	4	1			3	25	91	
March			1	11		3	4	32	4	55	1	5	1	23	2	21	7				42	134	
April		1	1	9			1	22	6	40				23	2	20				5	25	94	
May		1		10			1	25	1	37				20		18				1	30	94	
June		1		20		1	1	32		55				13		20				11	51	130	
Total.	8	7	132	7	15	352	24	1	541	1	9	1	240	13	1	1	5	8	65	448	1,328		

TABLE NO. 16.—*Report of pension certificates issued in the fiscal year ended June 30, 1901—Concluded.*

	Act of June 27, 1890.													Total originals under all laws.	Grand total.			
	Originals.					Additional.	Increases.	Releases.	Restorations and renews.	Restorations and renewals to change class.	Supplementals.	Duplicates.	Accrueds.			Totals under act of June 27, 1890.		
	Army invalids.	Army widows.	Navy invalids.	Navy widows.	Total originals under act of June 27, 1890.													
1900.																		
July.....	1,604	829	97	35	2,565	374	1,245	75	158	25	18	145	461	5,066	3,233	7,180		
August.....	2,012	1,342	56	57	3,467	406	1,756	79	196	31	31	84	669	6,719	4,186	9,770		
September ..	1,520	1,031	34	42	2,627	258	775	57	138	21	16	77	475	4,444	3,235	6,563		
October.....	1,893	1,461	75	47	3,476	585	2,159	94	222	35	24	189	573	7,357	4,171	10,655		
November....	1,156	1,217	65	44	2,482	349	1,248	54	170	26	20	134	558	5,041	3,067	7,412		
December..	1,200	1,079	46	35	2,360	255	792	27	138	21	12	100	563	4,268	2,822	6,096		
1901.																		
January....	1,968	1,372	58	55	3,453	577	1,961	72	223	35	26	148	575	7,070	4,131	9,868		
February ..	1,227	1,231	60	41	2,559	366	1,244	48	141	22	26	172	568	5,146	3,182	7,250		
March.....	1,156	1,145	55	54	2,410	421	2,062	58	171	26	14	114	595	5,871	3,116	8,446		
April.....	1,343	1,684	85	38	3,050	516	1,985	99	197	30	25	166	799	6,867	3,839	8,963		
May.....	1,255	1,685	84	42	3,066	447	2,748	95	203	32	19	174	840	7,624	3,856	10,942		
June.....	2,111	2,058	159	86	4,414	538	4,862	122	306	46	18	154	1,019	11,478	5,387	15,604		
Total.	18,445	16,084	874	576	35,929	5,092	22,837	890	2,262	350	249	1,657	7,695	76,951	44,225	109,668		

TABLE No. 17.—*Report of the mail division for the fiscal year ended June 30, 1901.*

Received.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	Total.
Applications:													
Invalid, original, general law	227	254	289	240	213	203	285	223	256	197	240	221	2,548
Invalid, original, Spanish war	607	776	886	962	870	870	1,243	976	1,520	1,336	1,986	1,068	12,520
Invalid, original, act June 27, 1890	4,129	3,854	4,250	3,038	2,074	2,129	2,773	2,523	2,326	2,326	2,273	2,090	88,778
Widows, original, general law	641	663	4,682	782	569	569	785	704	1,381	1,381	1,164	994	10,124
Widows, original, Spanish war	94	108	121	164	103	103	157	112	152	151	1,180	122	1,578
Widows, original, act June 27, 1890	2,627	2,292	1,915	2,171	1,559	1,649	1,818	1,842	2,609	2,029	1,996	1,922	24,330
War of 1812, original, 3; widows, 4	5	7	5	3	1	1	1	1	1	1	1	1	7
Bonny land, original, 3; widows, 37	23	18	9	25	25	2	31	11	8	9	2	2	60
Navy, original, 230; widows, 35	15	25	36	60	21	12	31	25	22	22	17	16	245
Mexican service, original, 84; widows, 28	13	55	15	29	23	27	16	8	13	23	30	35	361
Mexican service, increase, act January 5, 1898	49	41	33	49	31	35	52	28	35	89	29	80	461
Indian wars, original, 40; widows, 68	11	15	3	12	16	4	6	3	6	11	14	6	108
Act March 3, 1899	121	127	96	145	145	215	161	252	192	181	123	96	1,809
Act August 2, 1892 (nurses)	3	4	.....	5	.....	4	.....	6	.....	4	.....	.....	31
Act August 2, 1892 (nurses), Spanish war	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	4
Increase, general law	4,304	4,229	3,596	3,645	2,721	3,111	4,036	3,107	3,798	3,651	3,784	3,776	48,788
Increase, Spanish war	19	12	15	28	27	27	27	38	52	30	50	48	373
Increase, act June 27, 1890	12,357	11,380	4,832	5,669	4,417	4,306	5,643	4,670	5,721	5,322	5,417	6,037	74,781
Widows, accrued	580	568	474	559	519	485	602	577	835	836	798	768	7,561
Widows, accrued, Spanish war	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arrows	200	169	37	149	137	105	169	131	185	192	188	162	1,824
Reimbursement	60	71	69	56	63	44	40	40	46	73	83	88	782
Restoration, general law	178	151	57	131	113	109	166	105	223	175	146	149	1,703
Restoration, widows, act March 3, 1901	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Restoration, Spanish war	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Restoration, act June 27, 1890	113	110	22	86	53	41	73	84	68	50	52	59	2,970
Total	26,227	24,967	17,331	17,956	13,746	14,081	18,067	15,293	19,566	18,731	18,990	17,641	222,568
Total number applications, act June 27, 1890	19,126	17,646	11,020	10,964	8,108	8,125	10,307	8,925	10,921	9,727	9,738	9,088	133,700
Total number applications, Spanish war	736	747	1,045	1,215	1,040	1,027	1,454	1,149	1,570	1,724	1,626	1,294	14,827
Communications from the Departments	1,690	1,554	1,368	2,560	1,979	1,975	1,910	1,801	1,879	2,384	2,777	2,512	24,369
Pieces of evidence	89,371	92,313	80,159	97,246	74,467	69,399	97,692	87,752	96,799	103,178	109,193	107,324	1,104,912
Fee agreements	1,662	1,779	2,060	2,391	1,132	1,816	2,293	1,950	2,444	2,960	2,359	2,308	25,920
Applications for transfers	96	93	89	116	137	96	137	137	171	126	130	132	1,454
Applications for new certificates	407	589	678	763	690	506	736	638	663	473	537	516	7,086
Applications for permits	20	32	44	56	56	47	69	69	63	41	36	50	600
Reports from Adjutant-General	8,467	7,347	7,347	9,510	7,667	7,426	7,925	7,264	6,826	10,191	10,480	9,910	100,323
Letters of inquiry, office letters	18,401	12,625	9,237	12,296	10,962	10,962	13,863	18,276	11,418	14,656	16,688	13,619	156,423
Letters, miscellaneous	85,490	42,001	37,626	37,577	31,356	33,642	42,076	85,072	44,704	54,123	45,266	44,501	483,334
Army and Navy survivors' calls, record division	3,845	2,917	3,165	3,611	4,496	4,496	4,008	4,008	3,450	3,781	1,165	2,114	37,277
Reports from guardsmen	3	2	15	2,082	2,859	3,040	4,423	813	3,592	3,692	75	32	10,896
Pension certificates returned to pension agents	2,225	6,282	5,091	5,569	5,280	2,584	1,997	4,933	7,962	2,062	2,528	5,634	52,087

Surgeons' certificates.....	12,034	14,863	15,660	20,283	20,946	19,255	17,125	16,294	15,061	16,291	18,424	16,748	202,994
Orders for medical examination returned.....	9,031	12,131	12,751	17,064	17,018	14,673	14,198	14,350	12,206	14,730	16,351	11,316	165,811
Accounts from examining surgeons.....	6,785	7,175	6,685	8,132	7,680	7,680	7,110	7,502	7,502	6,997	7,456	6,969	86,462
Dead reports from special examiners.....	9,269	9,919	7,913	9,919	8,508	8,468	8,318	8,198	7,848	7,833	7,833	7,025	99,931
Death letters returned by Post-Office Department.....	3,683	3,268	8,023	8,168	2,713	3,225	2,994	3,040	2,566	2,927	2,927	2,974	36,257
Reports and cases from special examiners.....	2,717	2,505	2,404	2,705	2,073	3,225	3,178	1,735	2,171	2,186	2,066	2,222	23,647
Credibility inquiries returned.....	4,616	4,207	2,404	4,848	7,713	6,234	6,444	3,865	3,096	4,981	4,796	4,549	58,466
Congressional communications.....	8,479	10,615	8,974	9,784	6,138	12,685	13,778	12,835	8,506	8,151	6,925	6,731	112,111
Letters referred to chiefs of divisions.....	17,114	22,243	19,653	23,054	18,256	16,627	19,744	15,538	19,463	14,401	13,068	14,578	213,729
Letters referred to special desk, Commissioner's room.....	146	97	100	189	118	113	138	127	144	157	155	144	1,578
Letters referred to the Departments.....	184	242	220	281	279	250	305	309	516	282	245	176	3,299
Letters returned to writer for data to identify case.....	1,694	2,129	1,694	2,064	1,224	1,663	1,875	1,761	1,757	2,006	1,576	1,999	21,162
Letters briefed for record division.....	7,657	8,469	6,957	9,259	6,781	7,352	8,616	7,294	6,567	7,086	6,697	6,295	86,031
Total.....	245,116	264,877	236,736	284,446	241,346	235,820	278,302	245,991	263,563	278,948	279,772	269,194	3,127,101
Total letters received.....	79,856	82,282	71,160	79,583	70,846	78,369	78,198	77,712	71,179	80,428	88,594	76,946	929,103
OUTGOING MAIL.													
Commissioner's reports.....	105	98	74	106	94	61	87	88	66	116	88	98	1,083
Foreign letters, postage prepaid.....	99	266	106	104	67	110	145	162	125	176	113	119	1,592
Copies of pension laws, 1,617.....	75	93	58	65	33	80	62	59	54	87	57	48	771
Blank receipt cards to attorneys, number of cards, 243,190.....	630	1,239	768	786	504	757	649	772	619	1,403	1,212	1,215	10,745
Blank applications, 16,132.....	7	30	7	12	4	14	12	6	9	10	12	12	134
Congressional call slips, number 25,330.....	7	80	7	12	4	14	12	6	9	10	12	12	134
Letters.....	163,929	161,716	131,026	177,720	133,855	135,197	169,021	144,179	121,871	168,245	168,386	159,858	1,814,503
Cards.....	15,968	15,900	12,622	13,053	10,642	11,392	14,945	11,892	12,702	14,182	13,949	13,252	159,939
Calls on Adjutant-General.....	8,135	8,031	7,020	9,272	7,288	6,777	8,014	7,002	6,923	10,240	10,925	9,579	96,606
Total.....	179,148	186,773	151,671	201,120	151,987	154,388	192,935	164,199	142,369	194,459	184,142	184,182	2,087,373
Total number pieces handled.....	450,491	476,607	406,738	503,524	407,079	404,289	489,304	428,473	425,498	492,138	482,904	471,017	5,437,062
Postage stamps received in mail.....	263	312	263	391	306	387	362	373	410	462	350	260	4,091
Money received in mail.....	\$429.12	\$1,565.27	\$232.98	\$1,873.66	\$314.13	\$2,076.68	\$395.40	\$287.60	\$960.30	\$356.53	\$167.50	\$313.00	\$8,851.12

TABLE No. 19.—*Pending claims on hand June 30, 1901—Concluded.*

WAR WITH SPAIN.

	Pending.
Original invalid:	
Army.....	29,418
Navy.....	613
Reissue invalid:	
Army.....	1
Navy.....	10
Original widow:	
Army.....	2,740
Navy.....	134
Increase invalid, Army.....	598
Increase widow, Army.....	23
Accrued.....	9
Total.....	38,541

SERVICE PRIOR TO 1861.

	Pending.	Total.
Old wars:		
Original invalid.....	132	
Original widow.....	47	
Accrued.....	16	
		195
War of 1812:		
Widow.....	12	
Accrued.....	6	
		18
Indian wars, act of July 27, 1892:		
Survivor.....	20	
Widow.....	351	
Accrued.....	216	
		587
Mexican war:		
Survivor.....	72	
Widow.....	806	
Increase invalid.....	304	
Increase widow.....	6	
Accrued.....	659	
		1,847
Restoration and increase.....		200
Bounty land:		
Original.....		23
Duplicate.....		117
Total.....		2,987
Army nurses.....		78
Army and Navy (1861-1865).....		366,963
War with Spain.....		38,541
Grand total.....		408,569

TABLE No. 19a.—*Pending claims on June 30, 1901.*

Number of claims pending under the acts of July 14, 1862, and March 3, 1873:

Original invalid.....	16,871	
Reissue invalid.....	41,399	
Increase invalid.....	70,163	
		128,433
Original widows.....	22,516	
Reissue widows.....	8,937	
Increase widows.....	3,214	
		34,667

163,100

Number of claims pending under the act of June 27, 1890:

Original invalid.....	38,060	
Additional invalid.....	22,722	
Increase invalid.....	81,472	
		142,254
Original widows.....		37,412

179,666

War with Spain:		
Original invalid	30,031	
Reissue invalid	11	
Increase invalid	593	
Original widows	2,874	
Increase widows	23	
		<u>33,532</u>
Army nurses		78
Service prior to March 4, 1861		2,987
Accrued		24,206
		<u>403,569</u>
Total		<u>403,569</u>
Total soldiers		302,325
Total claimants		304,476

TABLE No. 19b.—*Exhibit showing the number of "original" claims pending June 30, 1901, in which no allowance has ever been made.*

Old wars:		
Invalid	132	
Widows	47	
		<u>179</u>
War of 1812: Widows		12
Indian wars:		
Survivors	20	
Widows	351	
		<u>371</u>
War with Mexico:		
Survivors	72	
Widows	806	
		<u>878</u>
Civil war:		
Invalid, general law	16,871	
Invalid, act of 1890	38,060	
		<u>54,931</u>
Widows, general law	22,516	
Widows, act of 1890	37,412	
		<u>59,928</u>
Army nurses		78
War with Spain:		
Invalid	30,031	
Widows	2,874	
		<u>32,905</u>
Total		149,282

There are included in this number 6,577 claims of soldiers who are deceased, and under the provisions of the act of March 2, 1895, these claims may be completed and the accrued pension to the date of soldier's death may be paid to the persons entitled thereto.

Of the number of pending original invalid claims 16,400 are represented by 12,364 claimants, claims having been filed under both laws by the same claimant.

Of the number of pending original widows' claims 26,168 are represented by 25,516 claimants.

TABLE No. 20.

BUREAU OF PENSIONS,
Washington, D. C., July 24, 1901.

SIR: Herewith I have the honor to submit tables showing operations of the special examination division for the fiscal year ended June 30, 1901.

Comparison with report for the preceding year shows an increase in the number of cases in the division. However, explanation of the

increase, which is slight—but 208 cases—is readily found in the figures which show a considerable decrease in the force employed during the year. For the year ended June 30, 1900, an average force of 226 special examiners was maintained in the field, as against 198 employed during the year just closed. Reasonably, with the same number of special examiners employed as in the preceding year a material decrease, instead of a slight increase, would have resulted.

The flow of work from other divisions of the Bureau to the special examination division at this time would seem to warrant an increase in the field force, and as the appropriation for the current fiscal year is sufficient to maintain a larger force, I trust it may be deemed advisable to add to the number of special examiners now in the field.

In passing it is deemed proper to invite attention to the fact that the report of the law division of the Bureau reflects in a measure the work of this division, as all investigations and practically all recoveries of money referred to therein are made by and through special examiners.

Very respectfully,

A. L. CRAIG,

Acting Chief Special Examination Division.

The COMMISSIONER OF PENSIONS.

TABLE NO. 20.—*Showing operations of the special examination division, number of investigations made, with cost of same, etc., during the fiscal year ended June 30, 1901.*

Average number of special examiners employed during the year.....		198
Amount appropriated by Congress for expenses of special examiners, not including salaries.....		\$400,000.00
Expenses of special examiners:		
Per diem, in lieu of subsistence.....	\$210,515.00	
Travel, etc., including cost of travel over subsidized railroads.....	101,730.77	
Total.....		312,245.77
Unexpended balance.....		87,754.23
Number of cases in division July 1, 1900.....	9,794	
Number of cases received from July 1, 1900, to June 30, 1901, inclusive.....	13,587	23,381
Number of cases submitted to board of review.....	10,717	
Number of cases sent to other divisions.....	2,662	13,379
Number of cases remaining in division July 1, 1901.....		10,002
Number of reports on cases.....	25,067	
Number of reports, with testimony, on credibility inquiries.....	5,456	
Total number of investigations.....		30,523
Number of depositions taken.....		133,850
Number of credibility inquiries investigated and returned without testimony.....		11,148
Average number of reports per examiner.....		154
Average number of depositions per examiner.....		676
Average cost per report.....		\$10.23

Number of reports reviewed in division and further examination ordered.....	15,906
Number of reports reviewed and cases submitted to board of review for final action	945
Number of reports reviewed and cases submitted to other divisions	339
Total number of reports reviewed in division	17,190
Number of letters written in review section.....	1,145
Number of circulars written in review section	1,136
Average number of reviewers employed.....	7
Correspondence:	
Letters to members of Congress.....	6,019
Letters to special examiners, including 1,145 written in review section	6,859
Miscellaneous letters.....	384
Total letters.....	13,262
Circulars, including 1,136 written in review section	29,022

TABLE NO. 21.

BUREAU OF PENSIONS,
Washington, D. C., July 12, 1901.

SIR: I have the honor to submit for your consideration the following report, showing, as far as can be done, the operations of the law division for the fiscal year ended June 30, 1901:

Criminal:	
Cases to Secretary for prosecution	• 186
Arrests made.....	191
Indictments found.....	300
Indictments tried	250
Indictments tried resulting in convictions.....	226
Indictments tried resulting in acquittals	24
Indictments dismissed on nolle prosequi	25
Number of persons convicted who have been sentenced.....	138
Number of persons convicted, sentence suspended.....	17
Number of persons convicted, sentence not reported.....	4
Cases pending in hands of United States attorneys	230
Attorneys:	
New enrollments and readmissions	1,057
Prohibitions under section 5498 ceased.....	3
Restored to practice	4
Total	1,064
Disqualified—	
By disbarment.....	37
By suspension	6
By dropping for cause	7
By dropping at request	2
By prohibition under section 5498	29
By death	207
Total	288

Attorneys—Continued.

Increase in number of attorneys entitled to recognition	776
Total number of attorneys entitled to recognition July 1, 1901	19,992
Cases of attorneys under rule to show cause pending before Commissioner of Pensions	15
Cases of attorneys recommended for disbarment pending before Secretary of Interior	6
Transfers of attorneyship	26
Changes of address	178

Cash recovered for the United States:

By reclamation	\$1,854.00
By United States attorneys	842.79
By civil suits	12,015.30
By special examiners	6,824.78
By reissue to recover	30.73

Total	21,567.60
Real estate, title transferred to United States; estimated value	3,000.00
Judgment in favor of United States not yet realized on	905.38

Total (all items)	25,472.98
Amount of fees recovered which had been erroneously paid by Bureau	\$1,150.50

Act of March 3, 1899:

Claims pending July 1, 1900	1,809
Claims filed during year	1,322
Claims reopened	575

Total	3,706
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Claims allowed during year	698
Claims rejected during year	1,073
Claims abandoned during year	531

Total	2,302
Claims pending July 1, 1901	1,404

Appeals of attorneys as to fees:

Number pending July 1, 1900	67
Number received during year	585

Total	652
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Disposed of during year:

Affirmations recommended	542
Dismissals recommended	105

Total	647
Number pending July 1, 1901	5

Motions for reconsideration of appeals:

Number pending July 1, 1900	2
Number received during year	6

Total (received and disposed of)	8
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Action of Secretary:

Bureau affirmed	469
Bureau reversed	16
Appeals dismissed	125

Total	610
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Fee contests before Commissioner of Pensions:	
Pending July 1, 1900.....	39
Received during year.....	4, 422
Total	4, 461
Disposed of during year.....	4, 410
Pending July 1, 1901	51
Miscellaneous:	
Cases on hand July 1, 1900.....	2, 188
Cases received during year.....	25, 954
Total	28, 140
Cases examined and referred to the Secretary of the Interior.....	998
Cases examined and referred to special examination division.....	2, 552
Cases examined and referred to other divisions.....	22, 492
Cases sent to Congress.....	1, 064
Total	27, 106
Cases on hand July 1, 1901.....	1, 034
Letters written.....	49, 075
Typewritten pages.....	70, 199
Stenographic pages.....	39, 603
Mimeograph pages.....	24, 900
Special examiners' reports reviewed.....	2, 117
Abstracts of testimony for auditors, etc.....	2, 501
Opinions rendered in cases of marriage and divorce.....	583
Attorneys verified on declarations, powers of attorney, and fee agreements.....	313, 734
Reports rendered in special act cases.....	650

CRIMINAL DATA.

At the close of the fiscal year 230 cases were pending in the hands of United States attorneys, in which evidence had been secured showing violations of law. The reports received during the year show that 250 indictments were brought to trial, resulting in 226 convictions and 24 acquittals. In 25 cases a nolle prosequi was entered. One hundred and thirty-eight persons were sentenced. Sentence was suspended in the cases of 17 persons convicted, and the action of the court in the cases of 4 others convicted has not been reported. During the year 191 persons were arrested, and 300 indictments were reported found.

Of the 25 indictments dismissed on nolle prosequi the causes assigned are as follows:

Lapse of time since proceedings were instituted.....	5
Old age and feebleness of defendant.....	4
Convicted in another case.....	5
Offense committed in another district.....	1
Death of principal witness for Government.....	1
Failure of grand jury to indict principal offender.....	2
Evidence not sufficient.....	2
Consideration for defendant's family.....	1
Inability to locate defendant.....	1
Cases in which reasons for dismissal have not been reported.....	3
Total	25

The 226 indictments tried, which resulted in convictions, were based upon the following charges:

False claim	64
False certification	26
False affidavit.....	16
False personation	5
Perjury	40
Forgery	18
Illegal fee.....	26
Personating Government officer	21
Retaining pension certificate	2
Prosecuting claims while a Government officer	4
Conspiracy.....	2
Embezzlement.....	1
Attempted bribery	1

It has been the uniform practice not to recommend prosecution in any case unless the criminal intent of the parties was clearly shown; and in the cases of soldiers and their dependents, to resolve every doubt in their favor, and not to recommend prosecution where it was apparent that they had been drawn into a violation of the law by others. As a result of this practice, the majority of the convictions secured were against attorneys, agents, sub-agents, magistrates, and others responsible for the preparation and filing of false and fraudulent claims and evidence, and those who falsely personated soldiers or soldiers' widows.

In view of the fact that the Bureau had obtained evidence in many pending claims showing that grossly irregular and improper practices were resorted to by certain persons engaged in the prosecution of pension claims at and around Newbern, N. C., an investigation was undertaken at the beginning of the fiscal year of the cases of some of the 337 army and navy pensioners residing in Craven and Jones counties, N. C. In the course of the examination it became necessary to investigate 22 pending original claims, in addition to the pending claims for reissue, increase, and additional pension filed by the pensioners. This work was completed in December, but 10 of the cases are still under investigation in other localities.

As a result of the investigation, the names of 38 illegal pensioners were dropped from the rolls and 24 pending claims were rejected upon the ground that they were fraudulent. In addition to the above there were 10 cases in which irregularities and forgeries were discovered, but in which no action was taken in view of the fact that it was shown that the pensioners were, nevertheless, entitled to the pensions received by them.

Six indictments were found against persons believed to be guilty of deliberate violations of the law, three for forgery, one for false impersonation of a soldier, one for an illegal receipt of pension by a remarried widow, and one for perjury committed before a special examiner. The first five cases resulted in conviction. The last case resulted in acquittal upon the ground that the oath was not administered in conformity with the North Carolina statutes, and for that reason perjury could not be sustained.

George P. McClay, of Charleston, S. C., an attorney before this Bureau (now disbarred), filed in the Bureau at least 127 claims for pension, of which 65 have been examined and the balance are now under investigation. Of those examined 10 claims appear to possess merit, but in the remaining 55 it is shown that he resorted to forgery,

false impersonation, false certification, or perjured testimony by professional witnesses. It appears that the attorney spent his time in his office preparing evidence which he believed, if credited, would establish title; and on one day in each week one Solomon M. Brown (barber and notary public), who had a shop about a mile away, would come to the office, take the papers to his barber shop, and there sign the jurats and impress his seal thereon without having sworn or even seen the signers of the papers. McClay was indicted during the April, 1901, term of the circuit court at Charleston, S. C., for forgery, false certification, filing a false claim, receipt of illegal fees, and the possession of forged papers in connection with 5 claims for pension.

The selection of these 5 cases from among the 55 claims in which the testimony showed that McClay had violated the law, was made in view of the fact that the witnesses resided at or near Charleston, S. C., and the circumstances were most economically susceptible of proof. McClay was convicted, and sentenced to six years' imprisonment at hard labor and to pay a fine of \$1,000. During his trial a number of his professional witnesses testified that they had signed papers at his instigation, singly and in bunches, without any knowledge as to their contents or the purposes for which intended, except that they supposed, as he was a pension attorney, they were to be used in connection with pension claims, one of the witnesses frankly admitting that he did not consider it wrong to sign any paper to assist a person to procure a pension.

Other attorneys and notaries in South Carolina are under investigation, and one of them has been indicted for 79 specific offenses, principally forgery and the collection of illegal fees.

Five persons employed as agents for the "United States Army and Navy Historical Association of Washington, D. C.," have been convicted in the United States district courts at Columbus and Cleveland, Ohio, and sentenced to terms of imprisonment of from fifteen months to three years, for falsely impersonating employees of this Bureau while canvassing the sale of a book, and for collecting from \$1 to \$10 from soldiers and their widows and orphans, by falsely representing that the book was a Government publication, and that its purchase would materially aid the purchaser in obtaining pension or an increase of pension. This scheme was resorted to by these men not only in Ohio, but in Pennsylvania, West Virginia, Indiana, and Michigan, resulting in unmerited criticism of this Bureau by their dupes, who believed the swindlers to be special examiners, and that the Government would make good their false promises.

During the year, \$21,567.60 in cash were recovered for the United States, as follows: By special examiners, \$6,824.78; by reclamation, \$1,854.00; by civil suits, \$12,015.30; by United States attorneys, \$842.79, and by reissue to recover, \$30.73. In addition, the title to certain real estate estimated to be worth \$3,000 was transferred to the United States, and a judgment secured for \$905.38, making a total of \$25,472.98, exclusive of fees recovered from those to whom erroneously certified, and paid to the attorneys entitled thereto.

ATTORNEYS.

During the year, 288 attorneys have been disqualified for the following reasons: Disbarment, 37; suspension, 6; dropping for cause, 7; dropping at request, 2; prohibition under section 5498, Revised Statutes, 29, and death, 207.

During the same period, new enrollments and readmissions numbered 1,057. The prohibition under section 5498, Revised Statutes, standing against 3 attorneys was removed, and 4 attorneys who had been disbarred or suspended were restored to practice. Fifteen attorneys are under rule to show cause why they should not be disbarred, and in the cases of 6 attorneys disbarment proceedings are pending before the Secretary of the Interior. The increase in the number of attorneys in good standing is 776, making a total of 19,992 entitled to recognition July 1, 1901, in claims filed subsequent to July 1, 1899.

The causes which led to the disbarment, suspension, and dropping for cause, number 24, and are as follows:

- Receiving illegal fees.
- Knowingly prosecuting false claims.
- Acting in collusion with disbarred attorney.
- Preparing and filing false testimony.
- Converting to his own use pension money of his ward while acting as guardian.
- Gross incompetency.
- Postdating pension vouchers.
- Improperly coaching witnesses.
- Committing perjury before a special examiner.
- Knowingly filing fraudulently prepared papers.
- Filing fraudulently prepared pension vouchers.
- Writing letters to Commissioner of Pensions couched in improper language.
- Publishing misleading advertisements.
- Impersonating a notary public.
- Making false jurats to pension papers.
- Falsely representing to be a Government officer.
- Attempting to procure a claimant for pension to commit perjury.
- Forgery.
- Contracting for illegal fees.
- Writing letter to claimant containing false and misleading statements relative to his claim, and making false statements in relation thereto to a special examiner.
- Fugitive from justice.
- Failure to refund fees improperly certified.
- Refusing to disclose information called for by Bureau.
- Insanity.

Attention is invited to the disreputable methods employed by some attorneys located at San Francisco, Cal., either permanently or temporarily, in soliciting pension claims. It is believed that stringent measures should be adopted to improve the conditions existing there. Nearly all the soldiers returning from the Philippines are there mustered out of the service, and besides the muster out of the regiments as they return to this country, convalescents are constantly being discharged from the Presidio Hospital on surgeons' certificates of disability. Payments are made to these discharged soldiers at the Presidio, and at the headquarters of the Department of California, U. S. A., in the Phelan Building. The general ticket offices of nearly all of the railroad companies are in close proximity to the Phelan Building, and for the convenience of the soldiers discharged at the Presidio Reservation there is a consolidated ticket office in the grounds. Naturally the soldiers on their way to their homes are anxious to leave San Francisco as soon as possible after their discharge, and competition between attorneys in procuring them to execute declarations for pension before leaving San Francisco has been sharp and keen in the extreme, nor has the business been confined to the resident attorneys. One or two Washington attorneys closed their offices here and removed to San Francisco to resume business there, while several others estab-

lished branch offices in San Francisco, with lieutenants to act for them. The offices of these attorneys are in the neighborhood either of the Presidio or the Phelan Building, and some have offices near both places. The methods employed by them in securing business have been as various as the character of the attorneys engaged therein. The distribution of circulars among the soldiers prior to their discharge, which is not prohibited, was soon found to be entirely inadequate to satisfy the ambitions of one class of attorneys, who proceeded to hire men employed in various capacities at the Presidio to act as solicitors for them. Men and women were sent into the Presidio Hospital as visitors to the sick, under the guise of charity and various other pretexts, whose only purpose was to pour into the ears of such soldiers as they could, glowing accounts of the system of pensions provided by law, and the merits of some particular attorney who made a business of prosecuting claims. Soldiers were procured to execute declarations for pension before their discharge, and such declarations were postdated and retained by the attorneys until after the muster out, when they were forwarded to the Pension Bureau. It has been found necessary by the commandant and the surgeon in command at the Presidio to take measures to prevent attorneys and those connected with them from entering the hospital, and to constantly change the details of the ambulance drivers and hospital men, etc.; by the authorities of San Francisco, to keep a patrol just outside the Presidio gates when occasion demands; by the railroad companies, to prohibit solicitors from importuning soldiers in the depots and ferries; and by this Bureau, to detail a special examiner to assist in every way possible in protecting the soldiers from the machinations of disreputable attorneys and their solicitors. Officers of the hospital have been approached even by saloon keepers in the interests of attorneys to secure information from the records. Soldiers and ex-soldiers having an acquaintance with men to be discharged, or otherwise suited to the purposes of attorneys, have been employed in large numbers to circulate among the men and advertise the qualifications and "advantages" of different attorneys. These men seize upon their victims whenever and wherever found, and more recently, in view of certain steps taken by this Bureau to prevent the execution of papers by soldiers prior to their discharge, such soldiers have been procured to fill out declarations for pensions and agreements as to fees while still in the service, so that all that is necessary to be done after discharge is to sign and make oath to the papers. A special examiner stationed at San Francisco, in one of his reports to this Bureau, states that it is not an infrequent sight on Market street to see one attorney "having hold of a poor, sickly soldier on one side, one of the other attorneys or their solicitors pulling at his other arm, a clothing dealer holding on to his coat tails, while a railroad ticket agent has him by the shoulders and talks transportation to him. They are all pulling and fussing as to who 'saw him first.' A beautiful spectacle, anyone will admit, but the general verdict of those who stop and wonder what will eventually become of this poor soldier is, 'He is in the hands of the pension sharks.'"

Some of the resident attorneys report that in view of the methods employed by some of their competitors they have come to the conclusion that very little business can be secured by reputable methods, and so have retired from the contest. Business rivalry has led to animosities between certain attorneys, and one attorney, who has been in the

thick of the fray, recently caused the following circular to be printed and distributed, in order to injure the standing of another:

X

READ ME!

X

WE WARN OUR SOLDIER BOYS AGAINST FRAUDS.

The Red Cross Society was organized for the protection and benefit of the soldiers. We are credibly informed that unscrupulous and irresponsible parties are soliciting claims against the Government, for * * * have invaded the Presidio camp and barracks, set their traps, and baited some with bogus and fictitious printed matter, and have used all kinds of deception for the purpose of catching our boys for pension claims, etc. We have been told that many have been persuaded to sign contracts allowing said * * * a fee equal to 20 per cent of all amounts collected, and to receive the claimant's draft, warrant, or check when the claim is allowed.

This is wrong, and robbery of the very worst kind. If the Government is indebted to you it will not cost you one-half or one-fourth of that amount to collect it. Hence we advise you to revoke your contract. This you can do, as it is not binding on you, for at the time you signed same you were still in the service and not discharged.

These same parties will be after you to sign other papers. We advise you to have nothing to do with them. Take heed.

COMMITTEE.

When the attention of the Red Cross Society was called to the circular, it was promptly repudiated by that organization. An investigation disclosed that the circular was prepared and caused to be distributed by an attorney who is entitled to practice before this Bureau, and disbarment proceedings have been instituted against him for his action in the premises.

That the business of procuring the filing of pension claims is a lucrative one for the "solicitors," "cappers," or "grafters," as they are called in San Francisco—employed by attorneys, is evident from the amount paid for each claim secured, which ranges from \$2.50 for a gunshot wound case and \$2 for a straight disability case on a surgeon's certificate of disability down to \$1, according to the element of uncertainty that may enter into the claim. This practice is responsible for the filing of a large number of claims that are without merit. Its actual operations are best shown by citing a few cases which are not exceptional in their character, and which illustrate the results of the system adopted by attorneys and their representatives to secure claims. The regulations of the War Department require a preliminary examination of a soldier to determine his physical condition prior to being mustered out of the service, and the certificate of examination is forwarded to this Bureau for consideration if the soldier applies for pension. In claim No. 1264312 the declaration was executed by the soldier at San Francisco, Cal., on his way home from the Philippines. The result of the preliminary examination prior to his discharge was as follows:

Declaration of person to be mustered out of service or discharged.

Q. Have you any reason to believe that at the present time you are suffering from the effects of any wound, injury, or disease, or that you have any disability or impairment of health, whether incurred in the military service or otherwise?

A. No. * * * I declare that the foregoing questions and my answers thereto have been read over to me, and that I fully understand the questions, and that my replies to them are true in every respect and are correctly recorded.

The soldier in question is unable to write his name, but signed his mark to the above declaration, which was attested by the first lieutenant

ant of his company, and is dated at Presidio March 5, 1901. The certificate of the company commander is as follows:

Q. Do you know, or have you any reason to believe, aside from his own statement, that the person who made and signed the foregoing declaration is disabled or impaired in health at the present time by reason of any wound, injury, or disease, whether incurred in the military service of the United States or otherwise?

A. No. * * * I certify that the foregoing statement is correct to the best of my knowledge and belief.

Said certificate is signed by the first lieutenant of the company in which the soldier served, and is dated at Presidio, March 5, 1901. The certificate of the examining surgeon in the case is as follows:

Q. Have you subjected the person named above to a thorough physical examination?
A. Yes.

Q. Do you find that at the present time he has any disability, whether incurred in the military service or not?

A. None. * * * I certify that the foregoing statement is correct to the best of my knowledge and belief.

Said certificate is signed by the major and surgeon of the regiment, and is dated at Presidio, March 9, 1901. The soldier was mustered out of the service on March 16. On the same day he executed a declaration for pension. Said declaration is partially in the handwriting of a certain attorney, who also claims to be a surgeon, and who advertises medical examinations free to all his clients. The declaration purports to have been sworn to in the presence of two witnesses, before a notary public, and in it the identical soldier referred to above swears that he is physically disabled from obtaining his subsistence by manual labor, by reason of the following injuries, received in the service of the United States, for which he claims pension, namely:

Disease of the stomach.
Bowel troubles.
Kidney and bladder troubles.
Malarial poisoning, and results.
Lumbago.
Pain in back.
Irritable heart.

Judging from this declaration, the soldier in question is pretty badly disabled, and if he can prove half of the disabilities alleged by him, he is entitled to a comparatively large pension; but he evidently had no idea that he had any disability whatever a week before he executed his declaration, and the surgeon of the regiment certifies that he then underwent a thorough physical examination, which disclosed no physical impairment whatever.

Another case may be cited of a soldier in the same regiment (claim No. 1264327) who, upon his examination, in answer to the question whether he believed he was suffering from the effects of any wound, injury, or disease, or any disability or impairment of health, whether incurred in the military service or otherwise, answered, "Yes, rheumatism (slightly)."

The answer is in the soldier's own handwriting and is attested by the first lieutenant of his company.

In the certificate of the company commander, signed by said first lieutenant, the latter, in response to the question whether he has any reason to believe, aside from his own statement, that the person who made and signed the foregoing declaration is disabled or impaired in health by reason of any wound, injury, or disease, answered "Don't know."

The major and surgeon of the regiment, in response to the question, "Have you subjected the person named above to a thorough physical examination?" answers "Yes," and in response to the question, "Do you find that at the present time he has any disability, whether incurred in the military service or not?" answers "None."

Where, as in this case, the soldier alleges a disability, the regulations of the War Department require a further examination by a board of surgeons. In this case the following certificate is subjoined to the examination:

We, the undersigned members of a board of examining surgeons for mustering out United States volunteer troops at Presidio, of San Francisco, Cal., after carefully examining _____, a private of Co. _____, _____ Rgt. Inf., United States Volunteers, find that he has no disability.

This certificate is signed by two assistant surgeons, United States Volunteers.

The above examination was held on March 11, 1901. The soldier was discharged on March 16, and on the same date he executed a declaration for pension in the presence of two witnesses, before a notary public, which declaration is mostly in the handwriting of the same attorney as the former case, and in it the soldier alleges that he is physically disabled from obtaining his subsistence by manual labor, by reason of the following injuries received in the service of the United States, for which he claims pension, namely: Stomach and bowel trouble (chronic diarrhea), resulting in disease of rectum (piles); also rheumatism, affecting heart.

In the case of another soldier in the same regiment (No. 1264322), the soldier underwent his preliminary examination on March 5, 1901, and alleged that he was suffering with soreness and stiffness in the right leg below the knee. The first lieutenant of his regiment certified that he had no knowledge of any disability of said soldier, aside from his own statement. The major and surgeon of the regiment certified that after subjecting the soldier to a thorough physical examination, he was unable to find any disability whatever. The soldier then appeared before the board of examining surgeons for mustering out volunteers, composed of two assistant surgeons, United States Volunteers, and they certify that after carefully examining the soldier they find that he has no disability. On the 16th of March, the day of his discharge, the same soldier executed a declaration for pension, in the presence of two witnesses before a notary public, alleging that prior to his entering the service he was a man of good, sound physical health, but is now physically disabled from obtaining his subsistence by manual labor, by reason of the following disabilities, namely:

Injury to right leg.
Disease of urinary organs.
Malarial poisoning.
Stomach and results.
Disease of teeth.

In the case of another soldier in the same regiment (No. 1267635), the examination referred to above was held on March 18, 1901. The soldier declared that he had no reason to believe that at that time he was suffering from the effects of any wound, injury, or disease, or that he had any disability or impairment of health, whether incurred in the military service or otherwise. The first lieutenant of his company certified that he did not know or have any reason to believe that said soldier was disabled or impaired in health at that time by reason of

any wound, injury, or disease, whether incurred in the military service of the United States or otherwise. The assistant surgeon of the regiment certified that he subjected the soldier to a thorough physical examination, and that he did not find that at that time he had any disability, whether incurred in the military service or not. The next day the soldier executed a declaration for pension, alleging that prior to his entry into the service he was a man of good, sound physical health, but that he is now disabled from obtaining his subsistence by manual labor, by reason of malarial fever, resulting in chills and fever, and disease of kidneys incurred in the service of the United States.

In another case (No. 1262952), the soldier was examined on February 12, 1901, and stated that he had had rheumatism in the right knee. The captain of his company certified that he did not know, and had no reason to believe, aside from his own statement, that said soldier was disabled or impaired in health at that time by reason of any wound, injury, or disease, whether incurred in the military service of the United States or otherwise. The major and surgeon of the regiment certified that he subjected the soldier to a thorough physical examination, but did not find that at that time he had any disability. The board of examining surgeons, composed of two acting assistant surgeons, certified that after carefully examining said soldier, they find that he "has no permanent disability; no indication of rheumatism, joint normal; man states he is now well."

On February 20, the day of his discharge from the service, the soldier executed a declaration for pension, in the presence of two witnesses, before a notary public, in which he swears that he is physically disabled from obtaining his subsistence by manual labor, by reason of the following-named disabilities, received in the service of the United States:

A hurt of the right knee—having slipped while coming down mountain side, resulting in weakness of leg—and neuralgia of same; also, at Pagsanhan, P. I., about April, 1900, contracted malarial fever, resulting chills and fever; disease of liver, spleen, and urinary organs, cause, climatic conditions; is also suffering from loss of teeth received during Philippine campaign, caused by food and exposure.

In another case (No. 1262846), examination was held on February 13, 1901. The soldier declared that he had no reason to believe that he was suffering from the effects of any wound, injury, or disease. The first lieutenant of his company certified that he did not know, and did not have any reason to believe that said soldier was disabled or impaired in health. The major and surgeon of the regiment certified that after a careful physical examination, he did not find that the soldier had any disability. On February 20, the day of his discharge, soldier executed an application for pension, in which he swears that he is physically disabled from obtaining his subsistence by manual labor, by reason of the following diseases, received in the service of the United States, namely:

On or about — day of April, 1900, became overheated, resulting derangement of the nervous system, disease or irritation of heart, dizziness and chronic headache; also, at Santa Cruz, P. I., contracted malarial poisoning, resulting disease of urinary organs, disease of liver, spleen, and rectum.

The above-cited cases are only a few of a like class of hundreds which have been filed by soldiers returning from the Philippines by way of San Francisco. This condition of affairs, which amounts to actual fraud upon the Government and legitimate claimants for pen-

sion, is due to the system which is permitted to exist on the Pacific coast, whereby attorneys and their representatives pursue methods in the securing and filing of claims which, to say the least, are disreputable in the parties concerned, and which work injury to the Government.

Attention is again invited to the necessity of a complete revision of the roster of attorneys practicing before the Bureau, and a more careful scrutiny in future of the qualifications of those who apply for admission. It is believed that existing law governing attorneys confers ample power under which such action may be taken; but if it is held that it does not, Congress should be asked for the necessary authority to revise the present roster and drop therefrom those who, for want of character, ability, or for other satisfactory reasons, do not meet the requirements, and to limit admissions in the future to those properly qualified. When, as under the present system, claims must be adjudicated upon *ex parte* testimony, too much care can not be exercised in ascertaining the mental and moral qualifications of those who seek to act as the agents and attorneys who prepare and file such evidence. The majority of those practicing before the Bureau are men of the highest standing in the communities in which they reside, but, unfortunately, the minority includes many whose practices are such as to dishonor the profession; and any action which will result in dropping from the roster of attorneys the names of those who, by their improper and unprofessional practices, bring the whole pension bar into disrepute, would only be a tardy act of justice to those attorneys who place duty to client and Government above financial gain.

If a thorough revision of the roster is authorized, it is safe to predict that of the 20,000 attorneys now entitled to recognition more than 10,000 will not, for different reasons, apply for readmission.

FEEES AND FEE APPEALS.

On July 1, 1900, there were pending in this division 67 appeals as to fee and attorneyship, and during the year 585 were received, making a total of 652. Of this number 647 have been disposed of, 542 by recommending affirmation and 105 by recommending dismissal, leaving on hand at the end of the fiscal year only 5 appeals. The total number disposed of by the Secretary was 610, as follows: Action of Bureau affirmed, 469; reversed, 16; dismissed, 125. Of the 16 appeals reported as reversals of Bureau action, 8 were reversals of former decisions under which the claims were adjudicated, and involved a change in the practice, and 3 were cases in which adverse action was taken by this Bureau and submitted to the Department in order to secure a decision on certain unsettled points, leaving only 5 cases which can properly be classed as actual reversals of Bureau action. Of fee contests before the Commissioner, those on hand July 1, 1900, and received during the year numbered 4,461, of which 4,410 have been disposed of, leaving only 51 contests on hand July 1, 1901.

The classes of work under consideration increased about 50 per cent over the previous year, but notwithstanding this increase the work has been brought up to date without any increase in force.

Fees recovered which had been erroneously paid amounted to \$1,150.50.

In two classes of cases adjudicated by this Bureau—i. e., claims

under the act of March 3, 1899, for division of pension and claims for accrued pension—it is held by the Department of the Interior that the question of fee is a matter of contract and adjustment between claimant and attorney over which this Bureau has no jurisdiction.

It is believed that a law should be enacted providing that in both classes of cases a specified fee be paid by the United States pension agents upon certification of the Commissioner of Pensions, and making the receipt of any other fee unlawful.

ACT OF MARCH 3, 1899.

Since the passage of the act of March 3, 1899, the claims filed thereunder number 4,856, of which 1,832 have been allowed and 1,644 rejected. During the same period 580 claims have been abandoned, and 604 rejected and abandoned claims have been reopened, leaving pending on July 1, 1901, 1,404 claims.

The work performed during the past year is shown by the following statement:

Claims pending July 1, 1900.....	1, 809
Claims filed during year.....	1, 322
Claims reopened and renewed.....	575
Total.....	3, 706
Claims allowed.....	698
Claims rejected.....	1, 073
Claims abandoned.....	531
Total.....	2, 302
Claims pending July 1, 1901.....	1, 404

The 1,404 claims pending include many old cases in which diligent effort has been made to secure necessary evidence to warrant this Bureau in taking action, but the parties in interest failed to furnish same. If the reasonable requirements of the Bureau were promptly complied with by claimants, much delay could be avoided. The number of pending claims will, however, be materially reduced during the next ninety days, and the work will be brought as near current as the proper adjudication of the claims will permit.

MARRIAGE AND DIVORCE.

During the year, 597 cases were received in this division with requests for opinions covering the marital relations of the parties, of which 583 have been disposed of, leaving only 14 pending.

As time passes, it becomes more and more apparent that the act of August 7, 1882 (22 Stat. L., 345), should be amended so as to enable this Bureau to determine the status of those who claim pension as the widows of soldiers or sailors by a standard that would be uniform throughout the entire country. If the Bureau were permitted to determine questions of marriage, in the absence of proof of a formal marriage of the parties thereto, upon satisfactory evidence that the parties began cohabitation, no impediment existing, with a bona fide intent to become husband and wife, and the cohabitation is continuously maintained, and their conduct, reputation, and representation consistent with such a relationship up to the death of one of the parties or of their divorce, many inequalities in the practice based upon existing law would be removed and justice done many worthy claimants.

NATIONAL HOMES FOR DISABLED VOLUNTEER SOLDIERS.

The act of February 26, 1881, provides that the pensions of inmates of the National Home for Disabled Volunteer Soldiers shall be paid to the treasurer or treasurers of said Home, to be disbursed for the benefit of the pensioners. This act also provides that any balance of pension which may remain unexpended at the death of an inmate of the Home shall be paid to the wife or children, or, in default of either, to his legal representatives. Under this law, where a pensioner dies leaving neither wife nor children, a class of beneficiaries new to pension legislation is provided for.

It is easily conceivable that under the generous management of the Home a goodly portion of each recurring quarterly payment need not be disbursed by the officials of the Home for the benefit of an inmate, and that at the death of such inmate a substantial amount would remain as a balance. To pay to the legal representatives of a deceased pensioner this balance is not believed to be in harmony with the spirit of the pension laws. Such a balance may be considered as analogous to, even if not identical with, an accrued pension. As to the latter, the act of March 2, 1895, positively declares that an accrued pension shall not be considered a part of the estate of a deceased pensioner, and, in case no widow or minor child survives, only so much of the pension as will pay the expenses of the last sickness and burial of the pensioner will be allowed, and this only to the person who actually bore such expenses. There does not appear to be any reason why a pension, which is a gratuity of a personal nature, should, on the death of the beneficiary, pass into the hands of his legal representatives, between whom and the Government there exists no privity whatever. Accordingly, I recommend that the last clause of section 2 of the act of February 26, 1881, be amended so as to read:

And in case of his death at the Home, the same shall be paid to his widow, minor child or children under the age of 16 years, dependent mother or father, in the order named, or, in default of either, such balance shall escheat to the United States.

MISCELLANEOUS.

It is respectfully suggested that the attention of Congress be called to the conditions existing in cases where pensioners are, for whatever reasons, under guardianship, in order that legislation may be secured which will place within the jurisdiction of the Department of the Interior complete control over those who may be charged with the disbursement of the funds granted soldiers or their dependents who may be laboring under legal disabilities. If the appointment of such guardians were vested in the Department by law, it is believed that much good would accrue to unfortunate pensioners, and to the Government.

In concluding this report, it is gratifying to be able to state that the work of the division is practically current.

To the clerical force of the division credit is due for the able, intelligent, and energetic manner in which work assigned them has been performed.

Very respectfully,

S. A. CUDDY,
Chief of Law Division.

The COMMISSIONER OF PENSIONS.

TABLE No. 22.—Showing special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, date of approval, name of beneficiary, and name, rank, and service of soldier upon whose service pension is based, together with monthly rate by special act, monthly allowance prior to special act, and increase in each case by reason of passage of special act.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid	Dec. 20, 1900	Michael Dempsey	Michael Dempsey	Private, Co. B, 7th U. S. Inf.	\$12 00	\$8 00	\$4 00
Do.	Dec. 21, 1900	David S. Snyder	David S. Snyder	Captain, Co. K, 48th Ind. Vol. Inf.	24 00	12 00	12 00
Widow	Jan. 14, 1901	Emma J. Bidwell	William E. Bidwell	Sergeant, Co. G, 16th Conn. Vol. Inf.	8 00	8 00	8 00
Do.	do	Rosalie Tejedor Brinkerhoff	George L. Brinkerhoff	Captain, Co. B, 10th N. Y. Vol. Cav.	20 00	20 00	20 00
Invalid	do	Nicholas Briggeman	Nicholas Briggeman	Corporal, Ordnance Corps, U. S. A.	30 00	12 00	18 00
Do.	do	Cornwell M. Brill	Cornwell M. Brill	Private, Co. E, 188th Ohio Vol. Inf.	30 00	12 00	18 00
Helpless child.	do	Josephine Brown	William Brown	Private, Co. C, 2d Ark. Vol. Inf.	12 00	12 00	8 00
Widow	do	Ernestine D. Cabbell	James A. Cabbell	Private, Co. C, 8th Ky. Vol. Cav.	24 00	12 00	12 00
Invalid	do	James U. Childs	James U. Childs	2d lieutenant, Co. H, 16th Me. Vol. Inf.	50 00	38 00	12 00
Do.	do	Charles Clausen	Charles Clausen	Private, Co. D, 8th U. S. Inf.	20 00	17 00	3 00
Widow	do	Clara E. Colbath	George S. Colbath	Captain, Co. I, 9th Me. Vol. Inf.	20 00	8 00	12 00
Invalid	do	George O. Cole	George O. Cole	Private, Co. F, 7th Mich. Vol. Inf.	30 00	12 00	18 00
Do.	do	Edwin Culver	Edwin Culver	Q. M. sergt. Co. E, 1st Wis. Vol. Cav.	50 00	36 00	14 00
Do.	do	Charles S. Devline	Charles S. Devline	First-class pilot, Miss. River Squadron	17 00	17 00	0 00
Do.	do	Oliver Dornon	Oliver Dornon	Sergeant, Co. A, 8th Ind. Vol. Inf.	30 00	12 00	18 00
Widow	do	Lucinda D. Dow	Simon B. Dow	Corporal, Co. C, 27th Me. Vol. Inf.	12 00	8 00	4 00
Do.	do	Emma L. Du Bois	Wilbur F. Du Bois	1st lieutenant, Co. A, 29th Mich. Vol. Inf. and Co. F, 108th U. S. C. Vol. Inf.	17 00	12 00	5 00
Father.	do	John Erb	John Erb, Jr.	Private, Co. H, 1st Ohio Vol. Cav.	12 00	12 00	0 00
Invalid	do	Amos W. Felker	Amos W. Felker	Private (unassigned), 14th Me. Vol. Inf.	12 00	12 00	0 00
Do.	do	Andrew Ferguson	Andrew Ferguson	Pilot, U. S. ram. Lancers, Miss. Marine Brigade, U. S. Vols.	12 00	12 00	0 00
Do.	do	William M. Ferry	William M. Ferry	1st lieutenant and reg. quartermaster, 14th Mich. Vol. Inf.	40 00	12 00	28 00
Widow	do	Nelle L. Groshon	Thomas C. Groshon	Captain, Co. G, 1st Miss. Marine Brigade, U. S. Vols.	15 00	15 00	0 00
Invalid	do	Louis Hebel	Louis Hebel	Captain, Co. E, 108th Ohio Vol. Inf.	24 00	6 00	18 00
Do.	do	Joseph E. Hendrickson	Joseph E. Hendrickson	Private, Co. F, 1st D. C. Vol. Inf.	50 00	50 00	0 00
Do.	do	John F. Hutchison	John F. Hutchison	Private, Co. G, 7th Minn. Vol. Inf.	50 00	14 00	36 00
Do.	do	Charles H. Irvin	Charles H. Irvin	Captain and asst. Q. M., U. S. Vols.	80 00	12 00	68 00
Do.	do	Matthew T. Jones	Matthew T. Jones	Private, Co. E, 13th Me. Vol. Inf.	80 00	16 00	64 00
Do.	do	Samuel W. Kirkendall	Samuel W. Kirkendall	Private, Co. I, 75th Ohio Vol. Cav.	35 00	12 00	23 00
Do.	do	Bryon Kurtz	Bryon Kurtz	Private, Co. I, 75th Ohio Vol. Cav.	80 00	12 00	68 00
Do.	do	John H. Morrison	John H. Morrison	1st lieutenant, Co. D, 16th Pa. Vol. Cav.	17 00	6 00	11 00
Widow	do	Evelyn Neale Murray	Eli H. Murray	Colonel, 3d Ky. Vol. Cav., Bvt. Brig. Gen., U. S. Vols.	30 00	8 00	22 00
Dependent daughter	do	Mary Jane McLaughlin	John Nicklin	Private, Co. C, 12th Mass. Vol. Inf.	24 00	24 00	0 00
Invalid	do	John Nicklin	John Nicklin	1st Batty, Minn. Vol. L. A.	12 00	17 00	5 00
Do.	do	Major A. Northrop	Major A. Northrop	Wagoner, Co. H, 14th and Co. K, 18th S. H. Vol. Inf.	80 00	12 00	68 00
Widow	do	Fannie M. O'Linn	Daniel H. O'Linn	Private, Co. F, 92d Ohio Vol. Inf.	17 00	12 00	5 00
Invalid	do	Edward A. Parmalee	Edward A. Parmalee	Private, Co. F, 6th S. H. Vol. Inf.	80 00	24 00	56 00

PENSIONS.

Invalid	do	Ernst Pitschner	Ernst Pitschner	Sergeant, Co. G, 16th Iowa Vol. Inf.	20.00	12.00	8.00
Do.	do	Joseph Quinn	Joseph Quinn	Private, Co. F, 169th N. Y. Vol. Inf.	12.00	12.00	12.00
Widow	do	Mary J. Quinn	Francis J. Quinn	Private, Co. G, 5th N. J. Vol. Inf.	8.00	12.00	8.00
Invalid	do	Alonzo C. Rembaugh	Alonzo C. Rembaugh	Captain, Co. C, 71st Pa. Vol. Inf., Co. C, 37th U. S. Vol. Inf.	24.00	12.00	12.00
Do.	do	Lewis H. Riden	Lewis H. Riden	Private, Co. C, 78th Pa. Vol. Inf.	24.00	12.00	12.00
Do.	do	Gideon W. T. Riddon	Gideon W. T. Riddon	Private, Co. C, 27th Me. Vol. Inf.	30.00	12.00	18.00
Do.	do	Cornelius W. Roberts	Cornelius W. Roberts	Private, Co. B, Pike Co., Mo., Home Guards	12.00	12.00	12.00
Widow	do	Emma R. Rusling	William R. Rusling	1st lieut., Co. I, 5th N. J. Vol. Inf.	17.00	17.00	17.00
Do.	do	Annie E. Sharrard	Samuel R. Sharrard	Captain, Co. C, 21st Ky. Vol. Inf.	8.00	8.00	8.00
Do.	do	Eliza M. Stillman	Thomas J. Stillman	1st lieut., Co. B, 19th Conn. Vol. Inf.	17.00	12.00	6.00
Do.	do	Marie Sharpe	John B. Sharpe	1st lieut., Co. C, 1st Wis. Vol. H. A.	12.00	8.00	4.00
Do.	do	Emma C. Stephenson	William Stephenson	1st lieut., Co. A, 8th U. S. Cav.	25.00	17.00	9.00
Do.	do	Betsy A. Summers	Rowan Summers	1st lieut., Co. E, 2d R. I. Vol. Cav.	17.00	8.00	9.00
Invalid	do	Becky H. Taber	Moses H. Taber	Private, Co. I, 40th Ill. Vol. Inf.	40.00	25.00	15.00
Widow	do	Sarah E. Tate	Samuel A. Tate	Private, Co. F, 19th N. Y. Vol. Inf., and Co. I, 3d N. Y. Vol. L. A.	20.00	8.00	12.00
Invalid	do	Giles W. Taylor	Giles W. Taylor	Private, Co. F, 19th N. Y. Vol. Inf., and Co. I, 3d N. Y. Vol. L. A.	30.00	12.00	18.00
Widow	do	Augusta Ullman	Charles Ullman	Private, Co. H, 21 U. S. Dragoons	12.00	12.00	12.00
Invalid	do	Charles A. Westfield	Charles A. Westfield	Private, Co. G, 143d Pa. Vol. Inf.	30.00	24.00	6.00
Do.	do	John H. Wilcox	John H. Wilcox	Private, Co. D, 7th Conn. Vol. Inf.	50.00	30.00	20.00
Do.	do	Martin V. B. Winkler	Martin V. B. Winkler	Private, Co. K, 43d Ind. Vol. Inf.	30.00	12.00	18.00
Widow	do	Mary V. Wilmarth	Bozwell S. Wilmarth	2d lieut., Co. D, 14th N. Y. Vol. Inf.	15.00	8.00	7.00
Invalid	do	John J. Wilson	John J. Wilson	Private, Co. F, 53d Ohio Vol. Inf.	36.00	30.00	6.00
Widow	do	Catherine Weinheimer	Melchior Weinheimer	Private, Co. I, 1st U. S. Reserve Corps, Mo. Vol. Inf.	24.00	8.00	16.00
Do.	Jan. 16, 1901	Martha Agnew	Elthu W. Agnew	Q. M. sergeant, Co. M, 2d Mich. Vol. Cav.	8.00	8.00	8.00
Do.	do	Alicia Bennett	Thomas Bennett	Private, Co. H, 125th U. S. C. Vol. Inf.	8.00	8.00	8.00
Do.	do	Mary J. Calvin	Joseph A. McIlvain	Corporal, Co. H, 82d Ind. Vol. Inf.	12.00	12.00	12.00
Invalid	do	Franklin Cooley	Franklin Cooley	Surgeon, 14th Mo. Home Gds., act. asst. surg., U. S. Vols.	12.00	12.00	12.00
Widow	do	Mary R. Dean	Amos G. Thomas	Captain, Co. G, 11th R. I. Vol. Inf., 1st lieut., Co. E, 3d R. I. Vol. Cav.	20.00	20.00	20.00
Do.	do	Lydia J. De Silva	Josiah W. De Silva	Corporal, Co. F, 103d N. Y. Vol. Inf.	12.00	12.00	12.00
Do.	do	Rebecca J. Harvey	Thomas Harvey	2d lieut., Co. E, 5th and 7th Del. Vol. Inf.	12.00	12.00	12.00
Do.	do	Olive W. Lay	Nathan Paine	Major, 1st Wis. Vol. Cav.	25.00	25.00	25.00
Do.	do	Mary E. Lacey	Benjamin H. Roby	Sergeant, Co. E, 4th N. J. Vol. Inf., and nurse, Med. Dep., U. S. Vols.	12.00	12.00	12.00
Do.	do	Julia E. G. Lewis	William H. Lewis	Private, Co. C, 3d Mich. Vol. Cav.	12.00	12.00	12.00
Invalid	do	Louise O'Leary	Melanchthon McCoy	Private, Co. K, 148th Ill. Vol. Inf.	50.00	25.00	25.00
Widow	do	Micenger Philpott	James O'Leary	Surg., U. S. Vols., med. director, 6th Army Corps	50.00	50.00	50.00
Invalid	do	James H. Rainey	Micenger Philpott	Private, Co. A, 1st Miss. Vol. Mid. Rifles	12.00	12.00	12.00
Do.	do	James H. Thomas	James H. Rainey	Corporal, Cos. E and C, 7th Tenn. Vol. Cav.	12.00	12.00	12.00
Do.	do	Henry L. White	James H. Thomas	Private, Co. C, 18th N. H. Vol. Inf.	12.00	12.00	12.00
Do.	do	Roland Burnett	Henry L. White	Private, Co. D, 4th Ark. Vol. Mid. Inf.	12.00	12.00	12.00
Do.	do	Harriet Crossenbourg	Roland Burnett	Private, Co. D, 1st Ark. Vol. Cav.	12.00	12.00	12.00
Widow	Jan. 17, 1901	Maria H. Hixson	Nicholas Crossenbourg	2d lieut., Co. F, 18th Ark. Vol. Cav.	15.00	8.00	7.00
Do.	do	Lorinda Laughlin	Daniel Hixson	Captain, Mich. Vols., Black Hawk Indian war	12.00	12.00	12.00
Do.	do	Edmund P. Tierney	William Laughlin	Corporal, Co. H, 146th Ind. Vol. Inf.	12.00	12.00	12.00
Invalid	do	Mary A. Whitmore	Edmund P. Tierney	Hospital steward, U. S. A.	30.00	12.00	18.00
Widow	do	Thomas White	Michael H. McCullow	Private, Co. C, 35th Wis. Vol. Inf.	12.00	12.00	12.00
Invalid	do	Thomas White	Thomas White	Sergeant, Co. F, 9th Ill. Vol. Inf., and Signal Corps, U. S. A.	24.00	24.00	24.00

TABLE No. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid.	Jan. 23, 1901	Edwin S. Anderson.....	Edwin S. Anderson.....	Private, Co. A, 57th Ohio Vol. Inf.	\$15.00	\$6.00	\$9.00
Do.	do.	Andrew J. Arnett.....	Andrew J. Arnett.....	Corporal, Co. B, 6th Kans. Vol. Inf.	30.00	12.00	18.00
Widow	do.	Elizabeth Brooks.....	Samuel S. Brooks.....	2d asst. engineer gunboat Carondelet, U. S. N.	20.00	8.00	12.00
Do.	do.	Frances M. Cellar.....	James L. Cellar.....	Private, Co. C, 4th Ohio Vol. Inf.	8.00	.....	8.00
Do.	do.	Eva Clark.....	Joseph L. C. Hill.....	Private, Co. C, 20th Ind. Vol. Inf.	12.00	.....	12.00
Invalid	do.	Isaac N. Clessna.....	Isaac N. Clessna.....	Corporal, Co. E, 20th Ind. Vol. Inf.	30.00	16.00	14.00
Do.	do.	Ann E. Clarke.....	James W. Clarke.....	Corporal, Co. I, 2d Ky. Vol. Inf.	20.00	8.00	12.00
Widow	do.	Gilbert F. Colby.....	Gilbert F. Colby.....	Private, Co. L, 1st N. H. Vol. H. A.	24.00	12.00	12.00
Do.	do.	John Coombs.....	John Coombs.....	Private, Co. H, 2d Ill. Vol. H. A.	40.00	30.00	10.00
Do.	do.	Brice Davis.....	Brice Davis.....	Musician, Co. I, 23d Mo. Vol. Inf.	30.00	12.00	18.00
Do.	do.	Henry K. Davis.....	Henry K. Davis.....	Private, Capt. Edward Fitzski's Batty, Pa. Emergency Militia.	24.00	.....	24.00
Widow	do.	Susan Daniels.....	William Daniels.....	Corporal, Co. A, 11th Kans. Vol. Cav.	12.00	8.00	4.00
Do.	do.	Lucy E. Danilison.....	William H. Danilison.....	Major, 128th U. S. C. Vol. Inf.	25.00	8.00	17.00
Invalid	do.	Samuel Dorman.....	Samuel Dorman.....	Private, Co. I, 64th Pa. Emergency Mil.	12.00	.....	12.00
Widow	do.	Frances E. Childs.....	Jonathan W. Childs.....	Colonel, 4th Mich. Vol. Inf.	30.00	8.00	22.00
Invalid	do.	Lansford Ellis.....	Lansford Ellis.....	Private, Cos. C and L, 8th Pro. En. Mo. Mil. Inf.	20.00	12.00	8.00
Do.	do.	Jesse F. Gates.....	Jesse F. Gates.....	Private, Battery A, 2d U. S. Art.	30.00	8.00	22.00
Do.	do.	William T. Gratton.....	William T. Gratton.....	Private, Co. I, 126th Ind. Vol. Inf.	30.00	8.00	22.00
Do.	do.	George B. Hayden.....	George B. Hayden.....	Sergeant, Co. E, 7th Iowa Vol. Inf.	24.00	12.00	12.00
Do.	do.	Thomas G. Huff.....	Thomas G. Huff.....	Private, Co. H, 116th Ohio Vol. Inf.	50.00	12.00	38.00
Do.	do.	George W. Harrison.....	George W. Harrison.....	Captain and A. Q. Master and Bvt. Lieut. Col. U. S. Vol.	20.00	8.00	12.00
Do.	do.	Alfred Hering.....	Alfred Hering.....	Private, Co. C, 4th N. Y. Vol. Inf.	20.00	8.00	12.00
Do.	do.	James Irvine.....	James Irvine.....	Sergeant, Co. G, 48th N. Y. Vol. Inf.	20.00	12.00	8.00
Do.	do.	Stephen Johnson.....	Stephen Johnson.....	Private, Co. C, 124th Ill. Vol. Inf.	17.00	8.00	9.00
Do.	do.	Eliam Kirk.....	Eliam Kirk.....	Chaplain, Co. G, 123d Pa. Vol. Inf.	30.00	12.00	18.00
Widow	do.	Anna K. Littlefield.....	Milton S. Littlefield.....	Colonel, 21st U. S. C. Vol. Inf. and Bvt. Brig. Gen. U. S. Vol.	30.00	.....	30.00
Invalid	do.	Stephen Longfellow.....	Stephen Longfellow.....	Sergeant, Co. H, 20th Mass. Vol. Inf.	30.00	24.00	6.00
Do.	do.	John R. McCoy.....	John R. McCoy.....	Private, Co. H, 17th Iowa Vol. Inf.	12.00	.....	12.00
Do.	do.	William R. McMaster.....	William R. McMaster.....	Private, Co. F, 8th Iowa Vol. Inf. and Co. I, 9th Ia. Vol. Cav.	40.00	30.00	10.00
Do.	do.	David H. Morey.....	David H. Morey.....	Private, Co. F, 17th Ill. Vol. Inf.	40.00	12.00	28.00
Widow	do.	Edyth M. Muck.....	Anthony Muck.....	Captain, Co. L, 44th Mo. Vol. Inf.	20.00	8.00	12.00
Invalid	do.	Samuel Nichols.....	Samuel Nichols.....	Private, Co. E, 133d Ill. Vol. Inf.	20.00	8.00	12.00
Do.	do.	William Oliver.....	William Oliver.....	Corporal, Co. G, 1st H. Vol. Cav.	24.00	12.00	12.00
Do.	do.	James Osborn.....	James Osborn.....	Private, Co. E, 35th Wis. Vol. Inf.	25.00	17.00	8.00
Widow	do.	Nellie L. Parsons.....	H. Chester Parsons.....	Private, Co. L, 1st Vt. Vol. Cav.	20.00	.....	20.00
Do.	do.	Eliza D. Pennybacker.....	Nathan A. Pennybacker.....	Captain, Co. K, 4th Pa. Reserve Vol. Inf.	12.00	.....	12.00
Invalid	do.	Charles A. Perkins.....	Charles A. Perkins.....	Landsman, U. S. S. Antonio and Carrabasset U. S. N.	30.00	12.00	18.00

PENSIONS.

Widow	do	Benjamin R. Phillips	Private, Co. K, 6th Del. Vol. Inf.	8.00	8.00
Invalid	do	Jasper Pitts	Private, Co. K, 12th Kans. Vol. Inf.	12.00	30.00
Do	do	Francis M. Porter	Commissary sergeant, Co. L, 17th Ill. Vol. Cav.	12.00	50.00
Do	do	Eben E. Pushor	Private, Co. D, 4th Me. Vol. Inf.	10.00	20.00
Widow	do	John D. Tenney	Private, Battery E, W. Va. Vol. I. Art.	8.00	12.00
Do	do	Alexander Rappetti	Lieut. colonel, 39th N. Y. Vol. Inf.	17.00	25.00
Invalid	do	Benjamin Rippleman	Private, Co. F, 15th Mich. Vol. Inf.	10.00	17.00
Do	do	Albert A. Roberts	Private, Co. C, 23d Me. Vol. Inf.	8.00	7.00
Do	do	Augustus R. Rollins, alias Rhenault A. Rollins	Private, Co. K, 17th Ia. Vol. Inf.	14.00	14.00
Do	do	John Koop	First ass't. engineer, U. S. N.	20.00	20.00
Do	do	Joseph Smith	Private, Co. C, 58th Ill. Vol. Inf.	17.00	17.00
Do	do	Samuel Schutz	Private, Co. K, 4th Minn. Vol. Inf.	12.00	11.00
Do	do	Cornelius Schroder	Private, Co. H, 1st Cal. Vol. Inf.	12.00	12.00
Do	do	Sylvester Solomon	Private, Co. D, 4th Del. Vol. Inf.	12.00	8.00
Do	do	Benjamin F. Trapp	Private, Co. K, 14th Mo. H. Guards	20.00	18.00
Do	do	Henry Van Gelder	Corporal, Co. G, 65th N. Y. Vol. Inf.	12.00	20.00
Widow	do	Julia Van Wicklen	Private, Co. K, 3d Wis. Vol. Cav.	12.00	18.00
Invalid	do	Adam Velten	Private and sergeant, Co. B, 52d N. Y. Vol. Inf. and Co. A, 7th N. Y. Vol. Inf.	40.00	28.00
Do	Jan. 25, 1901	Thomas Claborné	1st lieut., Co. D, U. S. Mid. Rifles	12.00	4.00
Do	do	James H. Coventon	Musical, Co. F, 12th U. S. Inf.	16.00	12.00
Widow	do	Charlotte W. Drew	1st lieut., Co. J, 12th U. S. Inf.	25.00	4.00
Do	do	Elizabeth W. Eldridge	Captain, 14th U. S. Inf.	30.00	8.00
Do	do	Eric E. Farmer	Private, Capt. Chile's Co., 2d Tenn. Vol. Mud. Inf.	8.00	10.00
Invalid	do	J. J. Groff	Scout, U. S. A.	8.00	8.00
Nurse	do	Emily Haines Harrison	Nurse, Medical Dept., U. S. Vols	12.00	12.00
Widow	do	Martha G. D. Lyster	Colonel, 9th U. S. Inf.	35.00	10.00
Do	do	Laura Ann Smith	Private, Co. G, 1st Ga. Vol. Inf.	16.00	8.00
Do	do	Edith Lockwood Sturdy	Lieutenant-commander, U. S. N.	35.00	5.00
Do	do	Gertrude B. Wilkinson	Captain, 3d U. S. Inf.	30.00	10.00
Do	do	Mary Emily Wilcox	Lieutenant-colonel 2d Miss. Vols	12.00	8.00
Do	do	Charles A. D. Wiswell	Private, Co. F, 25th Me. Vol. Inf.	36.00	4.00
Invalid	do	William Lyman Chittenden	Capt. L. J. Powell's Co., Minute Men, Oregon Vol. of 1856.	8.00	24.00
Do	Jan. 30, 1901	John Calvin Lane	Scout and guide for 8th Mo. Vol. Cav.	12.00	8.00
Do	do	B. H. Randall	Sutler, Quartermaster's Dept., U. S. Vols.	8.00	12.00
Do	do	Fredrick W. Baker	Captain Co. I, 10th Tenn. Vol. Cav.	20.00	8.00
Widow	Feb. 6, 1901	Finlie L. Carr	2d lieut., 2d U. S. Voltigeurs	12.00	4.00
Invalid	do	Eli F. Chittenden	Corporal, Co. B, 14th Ill. Vol. Inf.	60.00	38.00
Widow	do	Rachel Frisbey	Musical, Co. K, 1st N. C. Vol. Inf.	12.00	4.00
Invalid	do	William E. Ferrée	Private, Co. M, 4th Iowa Vol. Cav.	20.00	8.00
Do	do	Otto Haltmorth	First-class private, Signal Corps, U. S. A.	17.00	17.00
Do	do	John Hutchens	Private, Capt. Baker's Co., 2d Reg. Ga. Mtd. Vols., Fla. Ind. War.	12.00	4.00
Do	do	Thomas J. Jackson	Lieutenant-colonel 11th U. S. C. Vol. Inf.	50.00	20.00
Do	do	Sayre Jensen	Private, Co. G, 1st S. Dak. Vol. Inf.	20.00	20.00
Do	do	Ellis P. Phillips	2d and 1st lieut. Co. A, 12th N. J. Vol. Inf.	60.00	10.00
Do	do	Alvin N. Sablin	1st lieut. Co. K and Capt. Co. C, 8th Mich. Vol. Cav.	50.00	37.00
Widow	do	Fredrick Sanders	Private, Co. D, 76th Pa. Vol. Inf.	18.00	12.00

1. No benefits. No ratable disability.

TABLE NO. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid	Feb. 5, 1901	Thomas L. Turnipseed	Thomas L. Turnipseed	Private, Capt. B. T. Elmore's Co. S. C. Vols., Fla. Inf. War.	\$12.00	\$8.00	\$4.00
Widow	do	A. Catherine Young	John L. Young	Private, Capt. Preston's Co., 1st Reg. Va. Vols.	12.00	8.00	4.00
Invalid	Feb. 7, 1901	Adella M. Anthony	William Anthony	Serjt. major, U. S. Marine Corps, U. S. S. Maine.	12.00	12.00	0.00
Do	do	John Abel	John Abel	Private, Co. K, 18th Mo. Vol. Inf.	24.00	24.00	0.00
Do	do	Luke P. Allobin	Luke P. Allobin	First sergeant, Co. E, 1st Ill. Vol. Inf.	12.00	8.00	4.00
Do	do	Ashel C. Aulick	Ashel C. Aulick	Private, Co. H, 3d Ohio Vol. Inf.	15.00	15.00	0.00
Widow	do	Olivia J. Baker	Julian G. Baker	Quartermaster, U. S. Navy.	20.00	10.00	10.00
Invalid	do	Henry C. Brooks	Henry C. Brooks	Private, Co. C, 39th Mass. Vol. Inf.	30.00	12.00	18.00
Invalid	do	Frank Blair	Frank Blair	Private, Capt. S. H. Walker's Co., Tex. Mtd. Vols.	16.00	12.00	4.00
Widow	do	Mary Black	Samuel C. Black	Private, Capt. Allen's Co. Ga. Vols., Creek Indian War.	8.00	8.00	0.00
Do	do	Elizabeth Beedley	Florella M. Kelsey	Captain, Co. A, 9th Ia. Vol. Inf.	20.00	20.00	0.00
Do	do	James Beistle	James Beistle	Private, Co. H, 123d Ohio Vol. Inf.	17.00	8.00	9.00
Do	do	Adam Belger	Adam Belger	Private, Co. G, 3d Md. Vol. Inf.	24.00	12.00	12.00
Do	do	Ambrose Brisset	Ambrose Brisset	Private, U. S. Marine Corps.	8.00	8.00	0.00
Widow	do	Caroline Buehler	Francis Buehler	Private, Co. G, 68th N. Y. Vol. Inf.	20.00	17.00	3.00
Widow	do	William H. Chapman	William H. Chapman	Lieut., U. S. revenue cutter Joe Lane, U. S. N.	17.00	17.00	0.00
Do	do	Anna C. Collier	Thomas S. Collier	Boatswain, U. S. N.	12.00	12.00	0.00
Do	do	Mattie O. Dickinson	Walter Mason Dickinson	Captain, 17th U. S. Inf.	30.00	20.00	10.00
Nurse	do	Nancy L. Donaldson	Nancy L. Donaldson	Nurse, Medical Department, U. S. Vols.	20.00	12.00	8.00
Invalid	do	Andrew E. Dunham	Andrew E. Dunham	Acting ensign, U. S. N.	24.00	12.00	12.00
Do	do	Jeremiah Evely	Jeremiah Evely	Private, Co. A, 1st Reg. Potomac Home Brig. Md. Vol. Cav.	30.00	12.00	18.00
Do	do	David R. Ellis	David R. Ellis	Paymaster's steward, U. S. S. Monitor and U. S. S. Thunxis and Sassafras, U. S. N.	40.00	12.00	28.00
Widow	do	Sarah Herriman	Hezekiah Herriman, alias Charles Clifford	Sergeant, Co. E, 1st U. S. Dragoons	12.00	8.00	4.00
Invalid	do	Irving Johnson, alias John Morgan	Irving Johnson, alias John Morgan	Private, Co. E, 52d Pa. Vol. Inf.	12.00	12.00	0.00
Helpless child	do	Lulu M. Jones	Samuel T. Jones	Captain, Co. A, 90th Ill. Vol. Inf.	12.00	12.00	0.00
Invalid	do	Henry A. Jordan	Henry A. Jordan	Private, Co. H, 1st Mass. Vol. Cav., and Co. D, 3d Mass. Vol. Cav.	24.00	6.00	18.00
Do	do	Francis A. Kitchen	Francis A. Kitchen	1st Lieut., Co. A, and asst. surgeon 174th Pa. Vol. Inf.	12.00	12.00	0.00
Widow	do	Phebe A. La Mott	James P. La Mott	1st Lieut., Co. I, 66th Ill. Vol. Inf.	12.00	8.00	4.00
Do	do	Laura P. Lee	George Lee	1st Lieut., Co. K, 21st U. S. Inf.	26.00	17.00	9.00
Do	do	Pattie L. McCown	John Buford	Major general, U. S. Vols.	30.00	30.00	0.00
Invalid	do	Edward McDuffey	Edward McDuffey	Copiersmith, U. S. S. Marston, U. S. N.	30.00	8.00	22.00
Widow	do	Ellen H. Phillips	Morton L. Phillips	Captain, U. S. Revenue-Cutter Service.	20.00	8.00	12.00
Invalid	do	Americus V. Rice	Americus V. Rice	Colonel, 67th Reg. Ohio Vol. Inf. and brig. gen. U. S. Vols.	100.00	36.00	64.00

PENSIONS.

Do.	do	Henry F. Rice	Henry F. Rice	1st lieut., Co. B, 17th U. S. Inf.	50.00	30.00	20.00
Do.	do	Thomas H. Roberts	Thomas H. Roberts	Sergeant, Co. K, 76th Ill. Vol. Inf.	80.00	24.00	18.00
Do.	do	Emth Thompson	Smith Thompson	2d and 1st lieut., Co. D, 14th Iowa Vol. Inf.	86.00	24.00	12.00
Dependent mother	do	Eliott Hardin Walworth	Rubena H. Walworth	Volunteer nurse, U. S. A.	25.00		25.00
Nurse	do	Emily Alder	Emily Alder	Nurse, Medical Dept., U. S. A.	12.00		12.00
Widow	do	Mary B. Allen	Alexander S. Wade	Private, Co. A, 211th Pa. Vol. Inf.	12.00		12.00
Invalid	do	Peter Anderson	Peter Anderson	Private, Co. C, 60th U. S. C. Vol. Inf.	80.00	12.00	18.00
Helpless children	do	James E. Terress, and Au- thor Arvin	George W. Arvin	Private, Co. E, 44th Ind. Vol. Inf.	12.00		12.00
Invalid	do	William F. Aylesworth	William P. Aylesworth	Private, Co. F, 11th Ill. Vol. Inf.	24.00	12.00	12.00
Widow	do	Sophie De V. Barrett	Walter Barrett	Lieut. col., 84th Pa. Vol. Inf.	80.00		80.00
Dependent mother	do	Annie Bean	William H. Wood	Private, Co. F, 31st Ohio Vol. Inf.	12.00		12.00
Invalid	do	Albert M. Bennett	Albert M. Bennett	Private, Co. E, 1st R. I. Vol. L. Art.	8.00	12.00	8.00
Do.	do	Henry G. Bigelow	Henry G. Bigelow	Private, Co. C, 15th Mass. Vol. Inf.	30.00	12.00	16.00
Do.	do	Alexander Boutin	Alexander Boutin	Private, Co. D, 84th Ind. Vol. Inf.	46.00	12.00	12.00
Do.	do	George F. Boulding	George F. Boulding	Private, Co. F, 11th U. S. C. Vol. H. Art.	12.00		12.00
Do.	do	David Briggs	David Briggs	Private, 12th Battery, Ind. Vol. L. Art.	12.00		12.00
Do.	do	Gordon Brown	Gordon Brown	Private, Co. C, 1st Conn. Vol. H. Art.	80.00	12.00	18.00
Do.	do	Almeda Brown	James A. Brown	Private, Co. B, 8th N. Y. Vol. H. Art.	12.00		12.00
Dependent mother	do	Catherine Broughton	William Broughton	Sergeant, Co. F, 9th W. Va. Vol. Cav.	12.00		12.00
Widow	do	Lucy B. Bryson	Hiram M. Bryson	1st lieut., Co. F, 18th Ky. Vol. Inf.	17.00	10.00	7.00
Do.	do	Mary Clark	Calvin B. Clark	Musician, 166th Pa. Vol. Inf.	12.00		12.00
Invalid	do	Thomas Clark	Thomas Clark	Private, Co. B, 9th and A. 7th Del. Vol. Inf.	12.00		12.00
Do.	do	Joseph Crawford	Joseph Crawford	Private, Co. C, 133d V. Va. State Mil.	80.00		80.00
Widow	do	Elizabeth Dickerson	James Bolter	Corporal, Co. L, 33 Iowa Vol. Cav.	12.00		12.00
Invalid	do	Michael Dignon	Michael Dignon	Private, Co. K, 6th Minn. Vol. Inf.	80.00	10.00	20.00
Widow	do	Elizabeth Dolman	John Dignon	Private, Co. H, 4th Ky. Vol. Cav.	12.00		12.00
Invalid	do	James T. Donaldson	James T. Donaldson	3d lieut., Co. A, 8th Ky. Vol. Cav.	15.00		15.00
Widow	do	Kate E. Duffy	Thomas Duffy	Private, Co. H, 14th Conn. Vol. Inf.	20.00	8.00	12.00
Invalid	do	Charles Forbes	Charles Forbes	Private, Co. H, 18th N. H. Vol. Inf.	24.00	17.00	7.00
Do.	do	Gabriel M. Funk	Gabriel M. Funk	1st lieut., Co. F, 91st Ill. Vol. Inf.	17.00		17.00
Do.	do	John H. Gardner	John H. Gardner	1st lieut., Co. B, 13th Ind. Vol. Inf., and Co. K, 1st Pa. Vol. (Mex. war)	80.00	12.00	18.00
Do.	do	William H. Gibbs	William H. Gibbs	Captain, Co. B, 18th Ill. Vol. Inf.	6.00		6.00
Do.	do	Franklin I. Gilbert	Franklin I. Gilbert	Private, Co. D, 17th Ohio Vol. Inf.	17.00	6.00	11.00
Widow	do	Julia A. Gilpin	Charles Gilpin	Lieut. col., 3d Reg. Potomac Home Brig. Md. Vol. Inf.	80.00	8.00	22.00
Invalid	do	Joel H. Hollowell	Joel H. Hollowell	Private, Co. D, 6th Pa. Vol. Cav.	30.00	12.00	(1)
Widow	do	Sarah Hammond	Peterson Brown	Private, Co. A, 2nd Iowa Vol. Inf.	12.00		12.00
Invalid	do	Samuel H. Haskins	Samuel H. Haskins	Private, Co. D, 2nd Mass. Vol. Inf.	12.00		12.00
Widow	do	Emuel H. Haskins	Emuel H. Haskins	Private, Co. D, 69th Pa. Vol. Inf.	6.00		6.00
Invalid	do	Burwell Hitchman	Burwell Hitchman	Sergeant, Co. F, 11th Mich. Vol. Cav.	24.00	17.00	8.00
Widow	do	James B. Hoffman	William C. Hoffman	1st lieut., 8d U. S. Cav.	32.00		32.00
Invalid	do	Richard Holloway	Richard Holloway	Private, Co. B, 3rd J. Vol. Inf.	30.00	12.00	(3)
Do.	do	Edward Hounson	Edward Hounson	Private, Co. E, 2nd Ky. M. M. Militia	34.00		24.00
Do.	do	Michael Howlett	Michael Howlett	1st lieut. Co. E, 10th N. Y. Vol. Engrs.	80.00	12.00	18.00
Do.	do	Rebecca G. Irwin	Michael Howlett	Corporal, Co. I, 11th Ohio Vol. Inf.	8.00		8.00
Widow	do	Julia Kinkead	David Kinkead	Sergeant, Co. I, 11th Pa. Reserve Inf.	12.00		12.00
Invalid	do	John Kinsey	John Kinsey	Private, Co. B, 45th Pa. Vol. Inf.	24.00	12.00	12.00

(1) Inoperative. Soldier died February 6, 1901, prior to passage of special act.

(3) Inoperative. Died January 7, 1901, prior to passage of special act.

(1) Not including \$2 additional for one minor child.

(2) Special act passed to prevent recoupment of pension erroneously drawn.

(3) Increase of \$12 to continue only during lifetime of blind child, Susan I. Duffy.

TABLE No. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid	Feb. 7, 1901	Frederick O. Lathrop	Frederick O. Lathrop	Private, Co. G, 1st Batt., 14th U. S. Inf.	\$18.00	\$8.00	\$8.00
Do.	do.	George A. Libby	George A. Libby	Private, Co. H, 14th N. H. Vol. Inf.	20.00	10.00	10.00
Widow	do.	Nancy Marshall	John Marshall	Private, Co. K, 20th Mich. Vol. Inf.	8.00	8.00	8.00
Invalid	do.	Leonhart Miller	Leonhart Miller	Private, Co. G, 23d Ky. Vol. Inf.	12.00	8.00	4.00
Widow	do.	Louclnda Miller	David Miller	Corporal, Co. B, 85th Pa. Vol. Inf.	8.00	8.00	8.00
Do.	do.	Susan A. Miller	Francis M. Miller	Private, Co. C, 7th R. I. Vol. Inf.	12.00	12.00	12.00
Invalid	do.	William E. Miller	William R. Miller	Private, Co. A, 4th Tenn. Vol. Inf.	24.00	24.00	24.00
Do.	do.	Smith Miner	Smith Miner	Private, Batt'y C, 1st W. Va. Vol. L. Art.	17.00	6.00	11.00
Do.	do.	Madison McCollister	Madison McCollister	Private, Co. K, 94th Ohio Vol. Inf.	30.00	12.00	18.00
Widow	do.	Catherine A. McClamathan	William P. Cox	Sergeant, Co. L, 6th Ohio Vol. Cav.	12.00	12.00	12.00
Do.	do.	Elizabeth B. McClellan	James McClellan	Private, Co. F, 196th Ohio Vol. Inf.	12.00	12.00	12.00
Invalid	do.	Matthew McDonald	Matthew McDonald	Private, Co. F, 83d N. Y. Vol. Inf.	50.00	24.00	26.00
Widow	do.	Martha Meswain	William Meswain	Corporal, Co. F, 26th En. Mo. Militia	12.00	12.00	12.00
Do.	do.	Isabella Myers	George W. Myers	Private, 3d Batt'y, Conn. Vol. L. A.	24.00	12.00	12.00
Invalid	do.	Mae Pearman	John F. Pearman	Private, Co. I, 67th and 59th Mass. Vol. Inf.	24.00	24.00	24.00
Widow	do.	George W. Plants	George W. Plants	Acting assistant surgeon, U. S. A.	12.00	12.00	12.00
Invalid	do.	Kate M. Pond	Richard H. Pond	1st Lieut., 12th U. S. Inf.	24.00	12.00	12.00
Widow	do.	Addie S. Potter	John W. Potter	Private, Co. B, 29th N. Y. Vol. Inf.	8.00	8.00	8.00
Do.	do.	Matilda Rapp	William Rapp	Private, Co. C, 62d N. Y. Vol. Inf.	8.00	8.00	8.00
Invalid	do.	Robert A. Reid	Robert A. Reid	Private, Co. G, 48th Pa. Vol. Inf.	24.00	12.00	16.00
Do.	do.	Thomas H. Roberts	Thomas H. Roberts	Sergeant, Co. K, 76th Ill. Vol. Inf.	30.00	12.00	18.00
Do.	do.	Samuel Ryan	Samuel Ryan	Q. M. sergeant, 3d Wis. Vol. Cav.	12.00	12.00	12.00
Do.	do.	Michael Ryan, alias Kennedy	Michael Ryan, alias Kennedy	Private, Co. F, 187th N. Y. Vol. Inf.	30.00	30.00	12.00
Do.	do.	Lyman A. Sayles	Lyman A. Sayles	Private, Co. H, 3d Mich. Vol. Inf.	80.00	16.00	14.00
Do.	do.	Channey Sheldon	Channey Sheldon	Private, Co. F, 147th N. Y. Vol. Inf.	24.00	17.00	7.00
Do.	do.	Martin Sherwood	Martin Sherwood	Private, Co. C, 36th Wis. Vol. Inf.	24.00	12.00	12.00
Do.	do.	John C. Shueneman	John C. Shueneman	Private, Co. A, 11th Pa. Vol. Inf.	24.00	12.00	12.00
Widow	do.	Susan Sidenbender	Jacob F. Hamaker	Captain, Co. F, 265th Pa. Vol. Inf.	20.00	20.00	20.00
Invalid	do.	William Snider	William Snider	Corporal, Co. H, 14th Ill. Vol. Cav.	24.00	14.00	10.00
Do.	do.	Louis Snyder	Louis Snyder	Corporal, Co. F, 71st Pa. Vol. Inf.	40.00	30.00	10.00
Widow	do.	Delia E. Stillman	James Henry Stillman	Private, Co. C, 11th U. S. Inf., and Co. A, 28d Mass. Vol. Inf.	22.00	1.10.00	1.12.00
Do.	do.	Laura V. Sweater	John Sweater	Mechanic, Engineer Dept. U. S. A.	12.00	12.00	12.00
Do.	do.	Phebe Tate	Thomas Tate	1st Lieut. Co. I, 3d Mich. Vol. Inf.	17.00	8.00	9.00
Do.	do.	Rosa G. Thompson, formerly Rosa G. Edwards	Rosa G. Thompson, formerly Rosa G. Edwards	Nurse, Medical Dept. U. S. Vols.	12.00	12.00	12.00
Invalid	do.	Henry S. Topping	Henry S. Topping	Q. M. sergeant, Co. M, 21st N. Y. Vol. Cav.	60.00	17.00	33.00
Widow	do.	Lydia A. Tryon	Charles S. Tryon	Private, Co. E, 60th En. Missouri M. I.	12.00	12.00	12.00
Do.	do.	Mary L. Tweddle	William Tweddle	Captain, Co. K, 10th Ky. Vol. Inf.	20.00	20.00	20.00
Invalid	do.	Amos Van Nausdick	Amos Van Nausdick	Sergeant, Co. F, 136th Ohio Vol. Inf.	20.00	10.00	10.00
Do.	do.	John Walkers	John Walker	Private, Co. B, 20th N. Y. Vol. Cav.	80.00	12.00	18.00

Widow	do	Sarah E. Wall	John B. Wall	Private, Co. A, 8d Pa. Vol. H. A.	8.00
Invalid	do	George F. White	George F. White	Private, Co. B, 3d Wis. Vol. Cav.	17.00
Widow	do	Harrlet A. Wilson	Lewis Wilson	Captain, 2d Ohio Vol. Inf., and capt., Co. D, 19th U. S. Inf.	8.00
Invalid	do	Joseph Zimmerman	Joseph Zimmerman	Sergeant, Co. I, 199th Pa. Vol. Inf.	17.00
Do	Feb. 8, 1901	Honora I. Stiles	Honora I. Stiles	Private, 3d Indep't. Batty, N. Y. Vol. L. A.	8.00
Do	Feb. 12, 1901	Orville H. Crain	Orville H. Crain	Private, Co. H, 146th Pa. Vol. Inf.	42.00
Widow	do	Eliza L. Reese	James T. Reese	Private, Capt. Wm. Butt's Co., Creek Indian war, 1838.	8.00
Invalid	Feb. 15, 1901	H. S. Reed, alias Daniel Hill	H. S. Reed, alias Daniel Hill	Seaman, U. S. S. Cricket and Mound City, U. S. N.	18.00
Helpless child.	Feb. 20, 1901	Carrie Babcock	Michael Babcock	Sergeant, Cos. E and B, 2d R. I. Vol. Inf.	12.00
Widow	do	Lizzie Barrett	Michael Barrett, alias	Private, Co. G, 61st Mass. Vol. Inf.	\$12.00
Invalid	do	George P. Beach	George P. Beach	Private, Co. A, 86th Ind. Vol. Inf.	24.00
Widow	do	James Brown	David B. Bedell	Private, Co. F, 22d Iowa Vol. Inf.	22.00
Invalid	do	Francis H. Baftum	James H. Baftum	1st Lieut., Co. M, 4th Iowa Vol. Cav.	30.00
Do	do	Charles C. Bunny	Francis C. Bunny	Sergeant, Co. F, 14th N. H. Vol. Inf.	8.00
Do	do	Wm. J. Cannon, alias	Wm. J. Cannon, alias	Private, Co. C, 292d Pa. Vol. Inf.	24.00
Do	do	William F. Caldwell	James Cannon	Private, Co. F, 7th Iowa Vol. Cav.	80.00
Do	do	William F. Carter	James Cannon	Private, Co. C, 9th Tenn. Vol. Cav.	26.00
Helpless child.	do	Anna Van D. Chenoweth	Mark F. Carter	Private, Co. E, 2d Iowa Vol. Inf.	12.00
Widow	do	William F. Cloud	Bernard P. Chenoweth	Captain, Co. A, 1st Kans. Vol. Inf.	80.00
Invalid	do		William F. Cloud	and col., 10th Kans. Vol. Inf., 2d Kans. Vol. Cav., war of the rebellion.	26.00
Widow	do	Mary C. Coombs	William Atkinson	Surgeon, 19th Ky. Vol. Inf.	25.00
Invalid	do	John H. Doremus	Henatio N. Davis	Captain and commissary of sub., U. S. Vols.	88.00
Do	do	Robert A. Edwards, Jr.	John H. Doremus	2d Lieut., Co. D, 2d N. J. Vol. Inf.	60.00
Do	do	Martha C. M. Fischer	Robert A. Edwards, Jr.	2d Lieut., Co. L, 4th Ky. Vol. Cav.	50.00
Invalid	do	William Fox	George S. Fisher	Sergeant, Col. Harding's regt., Ill. Vols.	24.00
Do	do	Carroll W. Fuller	Cyrus A. B. Fox	Musician, Co. H, 86th Ill. Vol. Inf.	15.00
Do	do	William Gaddis	William Fox	Private, Co. A, 6th Pa. Vol. Cav.	4.00
Do	do	John Geibel	Charles Frye	Sergeant, Co. G, 6th Me. Vol. Inf.	10.00
Do	do	Julia S. Goodfellow	Carroll W. Fuller	Private, Co. F, 4th N. Y. Vol. H. A.	8.00
Widow	do	Harvey Graham	William Gaddis	Private, Co. C, 85th Ohio Vol. Inf.	20.00
Invalid	do	Mary E. Griffiths	John Geibel	Private, Co. K, 1st Mich. Vol. L. A.	10.00
Invalid	do	Joshua B. Harris	William Gordon	Captain, Co. F, 15th N. H. Vol. Inf.	12.00
Do	do	Kate Harbaugh	Edward Goodfellow	Captain, Co. E, 45th U. S. C. Vol. Inf.	18.00
Do	do	Fanny Healy	Harvey Graham	Colonel, 204 Iowa Vol. Inf.	30.00
Do	do	Mary M. Howard, now	John H. Griffiths	Private, Co. B, 4th N. H. Vol. Inf.	8.00
Do	do	Jacob Hight	Richard O. Greenleaf	Private, Co. E, 16th Wis. Vol. Inf.	22.00
Do	do		Joshua B. Harris	Captain, Co. H, 3d Ohio Vol. Inf.	12.00
Do	do		Daniel L. Harbaugh	Private, Co. H, 3d Ohio Vol. Inf.	12.00
Do	do		Chester Healy	Sergeant, Co. B, 4th Iowa Vol. Cav.	24.00
Nurse	do		Mary M. Howard, now	Nurse, med. dept., U. S. Vols.	8.00
Invalid	do		Mary M. Kean	Private, Co. D, 151st Ind. Vol. Inf.	12.00
Invalid	do		Jacob Hight		30.00

1 Increase of \$12 to continue only during lifetime of helpless child.
 2 Inclusive of \$2 additional for one minor child.
 3 Exclusive of \$2 per month for each of 5 minor children.
 4 Inclusive of \$10 during life of helpless child.

TABLE NO. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and services.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid	Feb. 20, 1901	Amos L. Hood	Amos L. Hood	Private, Co. D, 171st Ohio Nat. Gds., Vol. Inf.	\$12.00	\$10.00	182.00
Do	do	Hiram J. Hoyt	Hiram J. Hoyt	Cornet, Co. H, 10th N. H. Vol. Inf.	80.00	12.00	18.00
Do	do	Samuel N. Hoyt	Samuel N. Hoyt	Sergeant, Co. K, 1st Ill. Cal. Vol. Inf., war with Mex. and Capt. Co. K, 3d Cal. Vol. Inf., and Co. G, 7th Ill. Vol. Inf., war of the rebellion.	80.00	12.00	18.00
Do	do	Henry D. Johnson	Henry D. Johnson	Private, Co. E, 43d Ohio Vol. Inf.	30.00	17.00	18.00
Dependent mother	do	Eliza M. Martin	Honace W. Lord	Cornet, Co. G, 8th N. H. Vol. Inf.	12.00	12.00	12.00
Widow	do	Anna T. Martin	John C. Martin	Private, Co. E, 3d N. J. Vol. Inf.	12.00	12.00	12.00
Do	do	Mary A. Merritt	John B. Merritt	Sergeant, Co. K, 1st Minn. Vol. Inf.	4.00	8.00	4.00
Do	do	Mary A. McClernand	John A. McClernand	Major-general, U. S. Vols.	50.00	50.00	50.00
Invalid	do	James M. McFry	James M. McFry	Private, Co. H, 7th Iowa Vol. Inf.	24.00	12.00	12.00
Do	do	Oliver W. Miller	Oliver W. Miller	Private, Co. B, 1st W. Va. Vol. Inf.	6.00	8.00	6.00
Do	do	William I. Miller	William I. Miller	Private, Co. B, 3d N. C. Med. Vol. Inf.	36.00	12.00	24.00
Do	do	Mary Elizabeth Moore	Henry M. Moore	Captain, Co. A, 8th Iowa Vol. Inf.	12.00	12.00	12.00
Widow	do	Henry M. Moore	Henry M. Moore	Captain, Co. A, 8th Iowa Vol. Inf.	50.00	50.00	38.00
Widow	do	John M. Palmer	John M. Palmer	Major-general, U. S. Vols.	50.00	50.00	50.00
Invalid	do	George A. Parker	George A. Parker	Sergeant, Co. D, 17th Me. Vol. Inf.	50.00	12.00	38.00
Widow	do	Henrietta Parrott	James C. Parrott	Lieut. Col., 7th Iowa Vol. Inf.	20.00	20.00	20.00
Widow	do	Thomas T. Phillips	Thomas T. Phillips	Private, Co. K, 40th N. J. Vol. Inf.	25.00	12.00	13.00
Invalid	do	Thomas T. Phillips	Thomas T. Phillips	Private, Co. B, 12th Pa. Vol. Cav.	24.00	17.00	7.00
Do	do	Ezra S. Pierce	Ezra S. Pierce	Colonel, 16th N. H. Vol. Inf.	30.00	30.00	8.00
Widow	do	Mary B. Pike	James Pike	Private, Co. A, 2d Ind. Vol. Inf.	20.00	12.00	8.00
Invalid	do	Hiram J. Reamer	Hiram J. Reamer	Captain, Co. G, 7th Ill. Vol. Inf.	30.00	20.00	16.00
Widow	do	Dora Reufro	Ferdinand Yeager	Private, Co. G, 3d Iowa Vol. Cav.	20.00	14.00	16.00
Invalid	do	Andrew Reed	Andrew Reed	Private, Co. H, 80th Ohio Vol. Inf.	24.00	24.00	24.00
Do	do	Abner C. Ricketts	Abner C. Ricketts	Private, Co. E, 25th Iowa Vol. Inf.	20.00	20.00	20.00
Do	do	Adolph Schreie	Adolph Schreie	Private, Co. E, 25th Iowa Vol. Inf.	24.00	16.00	24.00
Do	do	Nortin Schernerhorn	Nortin Schernerhorn	Sergeant, Co. H, 98th N. Y. Vol. Inf.	42.00	42.00	24.00
Do	do	George H. Shapley	George H. Shapley	Unassigned, 18th N. H. Vol. Inf.	12.00	16.00	12.00
Invalid	do	Paulina Smith	Charles Stewart	Private, Co. G, 31st Me. Vol. Inf.	80.00	16.00	14.00
Do	do	Charles Stewart	Charles Stewart	Private, Co. H, 4th Minn. Vol. Inf.	32.00	12.00	12.00
Do	do	John D. Thompson	John D. Thompson	Cornet, Co. C, 3d Del. Vol. Inf.	24.00	17.00	7.00
Do	do	Fredrick Vogel	Fredrick Vogel	Private, Co. K, 20th N. Y. Vol. Inf.	24.00	12.00	12.00
Do	do	Bernard Wagner	Bernard Wagner	Captain, Co. F, 11th Ill. Vol. Cav.	24.00	12.00	12.00
Do	do	Girard Welch	Girard Welch	1st Lieut. and Adj., 4th Ohio Vol. Inf.	12.00	12.00	4.00
Widow	do	Emily A. Wentworth	Albert Wentworth	Private, Co. I, 93d U. S. Art.	12.00	8.00	12.00
Invalid	do	Albert Wentworth	Albert Wentworth	Private, Co. I, 93d Pa. Vol. Inf.	12.00	17.00	13.00
Do	do	Ross Wheatley	Ross Wheatley	Private, Co. F, 14th Iowa Vol. Inf.	50.00	50.00	25.00
Do	do	Joseph B. Whiting	Joseph B. Whiting	Sergeant, 33d Wis. Vol. Inf.	30.00	25.00	25.00
Widow	do	Harold M. Worley	Wiley J. Worley	Sergeant, Co. G, 3d N. C. Vol. Mid. Inf.	15.00	8.00	7.00
Invalid	do	Andrew J. Woodman	Andrew J. Woodman	1st Lieut., Co. L, 2d Me. Vol. Cav.	80.00	24.00	17.00
Widow	do	Bessie L. Woodman	Daniel C. Woodman	1st Lieut., Co. A, 13th U. S. C. Vol. H. A.	17.00	17.00	17.00
Invalid	Feb. 25, 1901	John D. Allen	John D. Allen	Sergeant, Co. H, 6th Ind. Vol. Cav.	17.00	12.00	5.00

Do	James Barton	Private, Co. K, 2d Mo. Vol. I. A.	80.00	12.00	18.00
Widow	Sarah J. Blinnix	Private, Co. B, 4th Batt. D. C. Vol. Inf.	12.00	12.00	12.00
Do	Nettie W. Bliss	Private, Co. C, 51st Mass. Vol. Inf.	12.00	12.00	12.00
Invalid	James W. Boden	Private, Co. G, 23d Mass. Vol. Inf.	12.00	12.00	12.00
Do	Patrick Brennan	Private, Co. B, 17th and Co. A, 70th Ind. Vol. Inf.	48.00	12.00	28.00
Do	Samson D. Bridgman	Private, Capt. Terry's Co. Tenn. Vols. Indian war.	8.00	16.00	8.00
Do	Michael S. Brockett	Sergeant, Co. F, 52d Ill. Vol. Inf.	8.00	16.00	8.00
Do	Henry H. Brown	Private, Co. B, 83d Pa. Vol. Inf.	11.00	8.00	11.00
Widow	Albert Buck	Private, Co. D, 12th Ohio Vol. Inf.	17.00	12.00	17.00
Invalid	Chamness S. Burks	Private, Co. K, 101st Ill. Vol. Inf.	24.00	12.00	15.00
Do	Aries Burtcher	Sergeant, Co. D, 84 Mo. State Mil. Vol. Cav.	12.00	6.00	17.00
Do	James M. Campbell	Private, Co. D, 29th Iowa Vol. Inf.	20.00	17.00	7.00
Do	Frank F. Carnduff	Corporal, Co. M, 7th N. Y. Vol. H. A.	12.00	8.00	12.00
Do	William C. Chandler	Lieut. col. 52d Ohio Vol. Inf.	12.00	8.00	12.00
Widow	Amanda W. Clancy	Private, Co. B, 91st Ohio Vol. Inf.	50.00	26.00	14.00
Invalid	John D. Cobler	Private, Co. B, 24th Mass. Vol. Inf.	30.00	24.00	6.00
Do	Patrick Connelly	1st sergt. Co. A, 19th U. S. Vol. Inf.	50.00	30.00	20.00
Do	Thomas A. Cord	Private, Floyd's Mo. Rifles.	16.00	8.00	8.00
Do	Robert P. Currin	Corporal, Co. I, 10th Ill. Vol. Inf.	12.00	12.00	12.00
Do	George W. Cox, alias John Smith	Sergeant, Co. C, 11th Ohio Vol. Inf.	30.00	12.00	18.00
Do	Burdette N. Cleveland	Colonel, 1st N. Y. Vol. Inf.	25.00	8.00	17.00
Widow	Sarah Dinny	Captain and ass't. q'r. master, U. S. Vols.	30.00	20.00	10.00
Do	Mary A. Dobyns	Private, Co. K, 59th Ill. Vol. Inf.	12.00	12.00	12.00
Helpless child	Olivia Donathy	Private, Co. A, 189d Ohio Vol. Inf.	40.00	12.00	28.00
Invalid	Albert L. Duddleson	2d lieut. Co. C, 107th N. Y. Vol. Inf.	50.00	12.00	38.00
Do	Edwin G. Fay	Private, Co. E, 1st La. Mill. Vols.	18.00	8.00	10.00
Widow	Mary Flynn	Landsman, U. S. S. Congress, U. S. N.	20.00	12.00	8.00
Invalid	David Flynn	Colonel, 4th U. S. Inf.	24.00	8.00	16.00
Do	Maria N. Flint	1st lieut. Co. I, 23d Ill. Vol. Inf.	15.00	12.00	3.00
Invalid	Maurice Fitzgerald	Private, Co. K, 53d Ind. Vol. Inf.	17.00	10.00	7.00
Do	Johnson H. Fitzpatrick	Private, Co. D, 150th Pa. Vol. Inf.	30.00	17.00	13.00
Do	Albert Foster	Captain, Co. E, 5th Ohio Vol. Inf.	20.00	20.00	0.00
Widow	Virginia K. Fridelborn	Private, Capt. Thos. M. Likins's Co., Ala. Vols.	8.00	8.00	0.00
Invalid	William C. Griffin	Acting master, U. S. Navy.	15.00	8.00	7.00
Widow	Louisa N. Godfrey	2d lieut. U. S. Vols.	15.00	8.00	7.00
Do	Minnie Gray	Private, Co. D, 40th Mass. Vol. Inf.	50.00	24.00	26.00
Do	John W. Godfrey	Nurse, Medical Dept., U. S. Vols.	12.00	12.00	0.00
Invalid	E. Bradford Gay	Seaman, U. S. Navy.	40.00	22.00	18.00
Do	Sarah Hastings, now Sarah Carter	Private, Ga. Vols. (1812)	25.00	12.00	13.00
Do	Charles Hawkins	Corporal, Co. H, 11th Me. Vol. Inf.	25.00	12.00	13.00
Widow	Nancy Hardy	Private, Co. K, 67th Mo. State Mil. Vol. Cav.	30.00	12.00	18.00
Invalid	Silas Howard	Private, Co. I, 88th Vol. Inf.	20.00	8.00	12.00
Do	Edward Hause	Private, Co. C, 85th Pa. Vol. Inf.	12.00	12.00	0.00
Do	Andrew J. Harbison	Private, Co. A, Cape Girardeau Co., Mo., Home Gds.	36.00	12.00	24.00
Widow	Andrew J. Harbison	Private, Co. A, Cape Girardeau Co., Mo., Home Gds.	12.00	12.00	0.00
Do	Eli B. Halbertsma	Private, Co. A, Cape Girardeau Co., Mo., Home Gds.	12.00	12.00	0.00
Invalid	Thomas Jefferson Holmes	Private, Co. A, Cape Girardeau Co., Mo., Home Gds.	12.00	12.00	0.00
Do	Jacob Hoers	Private, Co. A, Cape Girardeau Co., Mo., Home Gds.	12.00	12.00	0.00
Do	Joseph V. Hoffer	Private, Co. A, 6th Del. Vol. Inf.	12.00	12.00	0.00
Do	Joseph V. Hoffer	Private, Co. A, 6th Del. Vol. Inf.	12.00	12.00	0.00

1 Special act passed to prevent recoupment of pension erroneously drawn.

TABLE No. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid	Feb. 26, 1901	Adoniam Holmes	Adoniam Holmes	1st lieutenant, Co. K, 37th Wis. Vol. Inf.	\$50.00	.....	\$50.00
Widow	do	Catherine T. Howell	Henry C. Howell	1st lieutenant, Co. G, 129th Ill. Vol. Inf.	25.00	.....	12.00
Invalid	do	George W. Hissey	George W. Hissey	Private, Co. H, 185th Ohio Vol. Inf.	12.00	\$12.00	13.00
Helpless child	do	Olie Heaton	James R. Heaton	Sergeant, Co. C, 1st W. Va. Vet. Vol. Inf.	30.00	.....	12.00
Invalid	do	James R. Husted	James R. Husted	Private, Co. K, 6th N. J. Vol. Inf.	12.00	.....	18.00
Helpless child	do	Taylor Hux	Benjamin Jones	Private, Co. B, 38th Iowa Vol. Inf.	12.00	.....	12.00
Widow	do	Elizabeth J. Jones	John R. Joy	Private, Co. C, 143rd N. Y. Vol. Inf.	12.00	.....	12.00
Invalid	do	John R. Joy	John R. Joy	Private, Co. H, 39th Iowa Vol. Inf.	30.00	.....	18.00
Widow	do	Anna F. Johnson	Amory K. Johnson	Private, Co. F, 4th Ill. Vols., War with Mex., and lieutenant, col. 14th Ill. Vol. Inf. and col. 28th Ill. Vol. Inf., civil war.	12.00	8.00	4.00
Invalid	do	Gideon Johnson	Gideon Johnson	1st lieutenant, Co. K, 66th Ind. Vol. Inf.	50.00	.....	20.00
Do	do	Perry C. Jeffrey	Perry C. Jeffrey	Private, Co. B, 9th Mo. State Mil. Vol. Cav.	12.00	6.00	6.00
Do	do	William W. King	William W. King	Private, Co. H, 1st Cal. Vol. Inf.	30.00	24.00	6.00
Do	do	John T. Knox	John T. Knox	Private, Capt. W. J. Stephenson's Co., Col. John Ewing's Reg., Black Hawk war.	12.00	8.00	4.00
Do	do	Charles H. Knapp	Charles H. Knapp	Corporal, Co. G, 125th Ohio Vol. Inf.	30.00	17.00	13.00
Do	do	Jacob W. Kouts	Jacob W. Kouts	Private, Co. D, 1st Minn. Vol. Inf.	36.00	12.00	24.00
Do	do	Joseph Kemper	Joseph Kemper	Private, Co. I, 2nd Ind. Vol. Inf.	20.00	12.00	8.00
Do	Feb. 28, 1901	Marcellus A. Lothrop	Marcellus A. Lothrop	Private, Co. I, 26th Mass. Vol. Inf.	20.00	12.00	8.00
Do	do	Elliott Loomis	Elliott Loomis	Private, Co. F, 24 Iowa Vol. Cav.	30.00	12.00	18.00
Do	do	Joseph N. Loving	Joseph N. Loving	Private, Co. E, 12th Ky. Vol. Inf.	20.00	8.00	12.00
Do	do	Peter Lundberg	Peter Lundberg	1st sergeant, Co. D, 3d Minn. Vol. Inf.	17.00	12.00	5.00
Widow	do	Vianna Mallard	John Q. Mallard	Private, Capt. Singletary's Co., 1st N. C. Vols.	12.00	.....	12.00
Invalid	do	Samuel Minnich	Samuel Minnich	Private, Co. E, 15th Iowa Vol. Inf.	12.00	.....	4.00
Do	Feb. 26, 1901	Henry Miller	Henry Miller	Private, General Service, U. S. A.	12.00	8.00	9.00
Do	do	Robert H. Metcalf	Robert H. Metcalf	Private, Co. A, 9th Mo. State Mil. Vol. Cav.	12.00	.....	12.00
Do	do	Richard P. Mitchell	Richard P. Mitchell	Sergeant, 1st Tenn. Vol. L. A.	25.00	12.00	13.00
Do	do	Flora Moore	George Mowry	Private, Co. D, 7th Kans. Vol. Cav.	30.00	12.00	18.00
Helpless child	do	George Mowry	George Mowry	Private, Co. A, 7th Ohio Vol. Inf.	12.00	.....	12.00
Invalid	do	Benedict A. McConnell	Benedict A. McConnell	Captain, U. S. Navy	12.00	.....	12.00
Do	do	Fred. G. McDowell	Fred. G. McDowell	2d class boy, U. S. S. Franklin and Albany, U. S. N.	12.00	.....	12.00
Widow	do	Mary J. D. McGlensy	John F. McGlensy	Private, Co. D, 10th Pa. Vol. Inf.	24.00	12.00	12.00
Do	do	Mary J. Nelson	John A. Nelson	Private, Co. A, 7th Ohio Vol. Inf.	30.00	12.00	18.00
Invalid	do	Louis Nessel	Louis Nessel	Captain, U. S. Army	18.00	12.00	6.00
Do	do	Eva K. Nyberg	Henry S. Nyberg	Private, Co. A, U. S. Engineer Corps.	18.00	8.00	10.00
Widow	do	Melville Olliphant	Melville Olliphant	Private, Co. D, 10th Mo. Vol. Cav.	12.00	.....	12.00
Invalid	do	George P. Overton	George P. Overton	Private, Co. G, Erie Reg. Pa. Militia.	30.00	12.00	18.00
Do	do	James Paul	James Paul	Private, Co. E, 10th N. Y. Vol. Cav.	24.00	10.00	14.00
Do	do	Abram P. Few	Abram P. Few	Sergeant, Co. K, 27th N. Y. Vol. Inf., and Co. G, 20th Pa. Vol. Cav.	80.00	17.00	13.00
Do	do	Lewis W. Phillips	Lewis W. Phillips	Private, Co. I, 67th Pa. Vol. Inf.	80.00	17.00	13.00
Do	do	Lewis W. Phillips	Lewis W. Phillips	Private, Co. C, 1st Batt. Me. Vol. Inf.	80.00	17.00	13.00

Do.	Francis H. Pike	Francis H. Pike	24 00	10 00	14 00
Nurse.	Julia A. Prouty	Julia A. Prouty	12 00		12 00
Invalid.	Daniel Palmatary	Daniel Palmatary	12 00		12 00
Nurse.	Ellen Quinn, formerly Ellen Logan.	Ellen Quinn, formerly Ellen Logan.	12 00		12 00
Widow.	Lottie M. Rankins	Joseph Rankins	12 00		12 00
Invalid.	John R. Robinson	John R. Robinson	24 00		12 00
Do.	Aaron R. Rohrbach	Aaron R. Rohrbach	12 00		12 00
Do.	Gustav Rienecker	Gustav Rienecker	30 00		8 00
Do.	Jerome R. Rowley	Jerome R. Rowley	50 00		15 00
Do.	William F. Rucker	William F. Rucker	50 00		38 00
Do.	James W. Russell	James W. Russell	12 00		6 00
Do.	Almira A. Scott	Jefferson Scott	8 00		9 00
Widow.	Alexander C. Scott	Alexander C. Scott	80 00		5 00
Invalid.	Daniel W. Shaw	Daniel W. Shaw	17 00		12 00
Do ¹	Sarah B. Schaefer	Charles M. Schaefer.	20 00		20 00
Widow.	William W. Schooley	William W. Schooley	40 00	30 00	10 00
Widow.	Caroline M. H. Searing	William M. Searing	24 00		24 00
Invalid.	William H. Simmonds	William H. Simmonds	24 00		12 00
Do.	Daniel Smith	Daniel Smith	40 00		12 00
Do.	Samuel S. Stafford	Samuel S. Stafford	30 00		17 00
Helpless child.	Louis M. Starring	Russell J. Starring	12 00		12 00
Do.	Hiram Stimpie	Luther J. Stimpie	12 00		12 00
Widow.	Marion M. Stone	Bartlett D. Runnells	12 00		12 00
Invalid.	Bela Sawyer	Bela Sawyer	40 00	17 00	23 00
Do.	William S. Swaney	William S. Swaney	50 00	26 00	24 00
Do.	Jacob E. Swap	Jacob E. Swap	40 00	8 00	16 00
Do.	Isaac D. Toll	Isaac D. Toll	12 00		12 00
Do.	William M. Tom	William M. Tom	45 00		12 00
Do.	James A. Thomas	James A. Thomas	37 00		8 00
Do.	Benjamin T. Thomas	Benjamin T. Thomas	30 00		16 00
Do.	Hugh Thompson	Hugh Thompson	24 00		12 00
Widow.	Rebecca Tolson	Douglas Tolson	40 00		8 00
Invalid.	Daniel E. Turner	Daniel E. Turner	12 00		28 00
Do.	Ferdinand Wagner	Ferdinand Wagner	30 00	14 00	16 00
Widow.	George M. Wallace	George D. Wallace	30 00	22 00	10 00
Invalid.	Edward Warner	George M. Walker	17 00		17 00
Do.	Franklin Warren	Edward Warner	40 00		28 00
Widow.	Josephine H. Whitehead	Franklin Warren	14 00		14 00
Invalid.	Edwin A. Wilson	Henry L. Whitehead	17 00		9 00
Do.	William J. Worthington	Edwin A. Wilson	16 00		8 00
Do.	William B. Wright	William J. Worthington	12 00		12 00
Do.	Andrew J. West	William B. Wright	40 00		10 00
Do.	John B. Frisbee	Andrew J. West	40 00		16 00
Do.	Jane A. Womack	John B. Frisbee	12 00		24 00
Feb. 28, 1901	Samuel F. Bell	Hubbard Womack	12 00		(1)
Do.	John H. Bliss	Samuel F. Bell	17 00		12 00
Invalid.	John Burns	John H. Bliss	24 00		7 00
Do.	John Burns	John H. Bliss	24 00		12 00
Do.	Peter Brunette	John Burns	40 00		8 00
Do.	Peter Brunette	Peter Brunette	40 00		17 00

¹ Special act passed to prevent recoupment of pension erroneously drawn.

TABLE No. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid	Feb. 28, 1901	Augustus L. Chetlain.....	Augustus L. Chetlain.....	Brig. and brt. major-general, U. S. Vols	\$40.00	\$12.00	\$28.00
Do	do	N. W. Conroy.....	John W. Conroy.....	Private, Co. F, 2d Iowa Vol. Cav	12.00	.....	12.00
Widow	do	N. M. Greeta Chapman.....	Richd O. Co. White.....	Private, Co. D, 2d Iowa Vol. Cav	12.00	.....	12.00
Halapin child	do	Reynolds Cozelle.....	Reynolds Cozelle.....	Private, Co. E, 34th Iowa Vol. Inf	12.00	.....	12.00
Invalid	do	Reynolds Cozelle.....	Reynolds Cozelle.....	Private, Co. E, 129th Ind. Vol. Inf	40.00	12.00	28.00
Do	do	Michael Falkoner.....	Benjamin Eason.....	Private, Co. E, 129th Ohio Vol. Inf.	24.00	10.00	14.00
Do	do	Michael Falkoner.....	Michael Falkoner.....	Private, Co. B, 149th Pa. Vol. Inf.	80.00	12.00	68.00
Do	do	Don. Farrington.....	Don. Farrington.....	Private, Co. H, 129th Ill. Vol. Inf.	24.00	12.00	12.00
Widow	do	James Gattion.....	Andrew J. Fouts.....	1st Lieut. Co. B, 62d Ohio Vol. Inf.	12.00	.....	12.00
Invalid	do	Katherine J. Gilman.....	James Gattion.....	Private, Co. E, 62d Ind. Vol. Inf.	24.00	12.00	12.00
Widow	do	Sylvanus A. Gifford.....	Benjamin H. Gilman.....	Captain, 18th U. S. Inf.	80.00	20.00	60.00
Invalid	do	William Gross.....	Sylvanus A. Gifford.....	Corporal, Co. H, 88th Mass. Vol. Inf	80.00	12.00	68.00
Do	do	William Gross.....	William Barton Greene.....	Nurse, Medical Dept. U. S. Vols	24.00	.....	24.00
Do	do	Levi C. Hare.....	William Gross.....	Corporal, Co. A, 2d Mass. Vol. Cav	24.00	12.00	12.00
Do	do	Jacob C. Harnsel.....	Levi C. Hare.....	Corporal, Co. A, 2d Mass. Vol. Cav	24.00	12.00	12.00
Do	do	Nicholas B. Ireland.....	Jacob C. Harnsel.....	1st Lieut. Battery, A, 2d Ill. Vol. A.	86.00	12.00	74.00
Widow	do	Eliza C. Johnson.....	Nicholas B. Ireland.....	Private, Co. D, 11th N. Y. Vol. Inf.	28.00	12.00	16.00
Invalid	do	Leahides F. Lavery.....	Robert W. Johnson.....	Private, Co. M, 1st Mich. Vol. L. A.	40.00	12.00	28.00
Widow	do	Sarah M. Lowell.....	Harlin Keeling.....	Corporal, Co. B, 1st Ark. Vol. Inf.	12.00	.....	12.00
Invalid	do	Sarah M. Lowell.....	Leahides F. Lavery.....	Private, Coes. B and C, 34th Iowa Vol. Inf	30.00	24.00	6.00
Widow	do	James Mason.....	Charles O. Eix.....	1st Lieut. Co. D, 57th Pa. Vol. Inf.	17.00	.....	17.00
Widow	do	Sarah M. Mason.....	James Miller.....	Private, Co. E, 7th Ill. Vol. Inf.	30.00	12.00	18.00
Invalid	do	Condy Menalis.....	Peter Miller.....	Private, Co. K, 47th Pa. Vol. Inf.	8.00	.....	8.00
Do	do	William Mitchell.....	Reynolds G. Morris.....	Private, Co. A, 292d Pa. Vol. Inf.	12.00	8.00	4.00
Do	do	Gilbert L. Pierce.....	William Mitchell.....	Private, Co. H, 1st Ill. Vol. Mex. War	12.00	12.00	.....
Do	do	William H. Ransom.....	Gilbert L. Pierce.....	Corporal, Co. I, 1st Ark. Vol. Inf.	86.00	12.00	74.00
Do	do	Benjamin F. Short.....	William H. Ransom.....	Private, Co. F, 17th N. Y. Vol. Inf.	24.00	12.00	12.00
Widow	do	Mary M. Sprandel.....	Benjamin F. Short.....	Private, Co. F, 72d Ind. Vol. Inf.	24.00	17.00	7.00
Do	do	Julius Sporeder.....	Julius Sprandel.....	Volunteer officer, staff of General Blencker.	8.00	.....	8.00
Invalid	do	Philip Volkner.....	Calvin Stephens.....	Private, Co. H, 2d Tenn. Vol. Cav	12.00	.....	12.00
Do	do	Thomas J. Young.....	Julius Sporeder.....	Sergt. major, 3d U. S. Reserve Corps, Mo. Vol. Inf.	30.00	12.00	18.00
Widow	do	Caroline H. Wright.....	Philip Volkner.....	Musician, Co. C, 29th Mich. Vol. Inf.	24.00	12.00	12.00
Invalid	do	Mary Priscilla Allen, now Barry.....	Daniel Kendall.....	Private, Co. B, 35th Ill. Vol. Inf.	12.00	.....	12.00
Nurse	Mar. 1, 1901	Mary Priscilla Allen, now Barry.....	Thomas J. Young.....	Private, Co. B, 1st Minn. Vol. Inf.	50.00	80.00	20.00
Do	do	William Ashmead.....	Mary Priscilla Allen, now Barry.....	Private, Co. D, 157th Pa. Vol. Inf.	12.00	.....	12.00
Do	do	William L. Aten.....	William Priscilla Barry.....	Nurse, Medical Department, U. S. Vols	12.00	.....	12.00
Do	do	William L. Aten.....	William Allen.....	Scout and spy, U. S. A.	12.00	.....	12.00
Do	do	William L. Aten.....	William Ashmead.....	Captain, Co. I, 7th Ill. Vol. Cav.	12.00	.....	12.00
Do	do	William L. Aten.....	William L. Aten.....	Private, Co. E, 98th Ohio Vol. Inf.	20.00	.....	20.00

TABLE No. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Invalid	Mar. 1, 1901	Lewis S. Horney	Lewis S. Horney	Private, Co. D, 4th Iowa Vol. Cav.	\$12.00	\$6.00	\$6.00
Do.	do	Henry Hegwer	Henry Hegwer	Private, Co. B, 9th Kans. Vol. Cav., and 2d lieutenant, Co. D, 18th Kans. Vol. Cav.	40.00	12.00	28.00
Do.	do	Zadok S. Howe	Zadok S. Howe	Private, Co. E, 25th Mich. Vol. Inf.	50.00	12.00	38.00
Do.	do	George C. Jarvis	George C. Jarvis	Surgeon, 7th Conn. Vol. Inf.	50.00	12.00	38.00
Do.	do	Jeremiah Jackson	Jeremiah Jackson	Private, Capt. Dickerson's Co., N. C. Vols.	12.00	8.00	4.00
Do.	do	Robert H. Jones	Robert H. Jones	Private, Co. H, 21st Ill. Vol. Inf.	40.00	12.00	28.00
Do.	do	Linsay C. Jones	Linsay C. Jones	Corporal, Co. K, 30th Ill. Vol. Inf.	12.00	6.00	6.00
Do.	do	John Johnson	John Johnson	Private, Co. K, 82d Ind. Vol. Inf.	36.00	24.00	12.00
Do.	do	Theron Johnson	Theron Johnson	Paymaster's steward, U. S. Landon, U. S. N.	30.00	12.00	18.00
Do.	do	Morris B. Kimball	Morris B. Kimball	Private, Co. C, 138th Ind. Vol. Inf.	30.00	12.00	18.00
Do.	do	Henry Keene	Henry Keene	Private, Co. G, 38th Ohio Vol. Inf.	24.00	14.00	10.00
Do.	do	Franklin Kersting	Franklin Kersting	Private, Co. E, 66th Ohio Vol. Inf.	30.00	12.00	18.00
Widow	do	Mamie Craig Lavinton	Henry W. Lavinton	Lieut. col., U. S. A., and major gen. U. S. Vols.	50.00	30.00	20.00
Do.	do	Ernestine Lavigne	Henry L. Fontaine	Private, Co. G, 12th Wis. Vol. Cav.	12.00	8.00	4.00
Do.	do	Bertha Leavey	Morris Leavey, alias Lewis	Sergeant, Co. D, 18th N. Y. Vol. Cav.	25.00	12.00	13.00
Do.	do	Henrietta M. Leliper	Charles L. Leliper	Colonel, 6th Pa. Vol. Cav.	30.00	8.00	22.00
Do.	do	Frances H. Lewis	John R. Lewis	Colonel, U. S. A., and Bvt. Brig. Gen., U. S. Vols.	50.00	50.00	0.00
Invalid	do	Elias M. Lynch	Elias M. Lynch	Private, Capt. Dickerson's Co., 3d N. C. Vols.	12.00	8.00	4.00
Widow	do	Lucie M. Mabry	Woodford H. Mabry	Private, 1st Tex. Vol. Inf.	50.00	30.00	20.00
Invalid	do	Charles A. Marsh	Charles A. Marsh	Private, Co. E, 5th Iowa Vol. Inf.	50.00	12.00	38.00
Do.	do	Fielding Marsh	Fielding Marsh	Private, Co. F, 148th Ind. Vol. Inf.	50.00	12.00	38.00
Do.	do	Georgina M. Mack	Oscar A. Mack	Lieut. col., 21st U. S. Inf.	50.00	30.00	20.00
Do.	do	Charly McKenney	Daniel Rowe	Private, Co. A, 10th, and Co. A, 29th Me. Vol. Inf.	12.00	6.00	6.00
Invalid	do	James M. Munn	Jesse Millard	Corporal, Co. G, 3d Tenn. Vol. Cav.	30.00	24.00	6.00
Do.	do	Samuel Z. Murphy	James M. Munn	1st Lieut., Co. D, 7th Ill. Vol. Inf.	50.00	30.00	20.00
Do.	do	Catherine L. Nixon	Samuel Z. Murphy	Private, Co. D, 30th Iowa Vol. Inf.	24.00	17.00	7.00
Widow	do	Mary A. O'Brien	Andrew Nixon	Private, Co. A, Oreg. Mtd. Vols., Indian war of 1855 and 1856.	8.00	8.00	0.00
Do.	do	William P. Payne	Michael O'Brien	Acting asst. surg. and 1st lieut., 4th Reg. U. S. Art.	17.00	17.00	0.00
Invalid	do	John W. Phillips	William P. Payne	Private, Co. F, 2d Tenn. Vol. Cav., and Co. G, 3d Tenn. Vol. Mtd. Infantry.	20.00	20.00	0.00
Do.	do	Margaret A. Potts	John W. Phillips	Private, Cos. K and C, 15th Pa. Vol. Cav.	24.00	12.00	12.00
Widow	do	Hippolyte Perrault	Hippolyte Perrault	Private, Co. G, 24th Wis. Vol. Inf.	30.00	8.00	22.00
Invalid	do	Samuel F. Radford	Samuel F. Radford	1st Lieut., Co. A, 1st New Orleans, La., Inf.	20.00	12.00	8.00
Widow	do	Harriet S. Richards	Channing Richards	Private, Co. K, 3d N. C. Mtd. Inf.	12.00	12.00	0.00
Do.	do	Adolphus Richardson	Adolphus Richardson	Captain, Co. F, 23d Ohio Vol. Inf.	20.00	20.00	0.00
Invalid	do	Martin Rodman	Martin Rodman	Corporal, Co. B, 29d N. Y. Vol. Inf.	24.00	8.00	16.00
Do.	do	James Ryan	Martin Rodman	Sergeant, Co. F, 2d Wis. Vol. Inf.	40.00	24.00	16.00
Do.	do	Selah V. Reeve	James Ryan	Private, Co. G, 31st Me. Vol. Inf.	30.00	12.00	18.00
Do.	do	John Scott	Selah V. Reeve	Captain, Co. E, 63d N. Y. Vol. Inf.	24.00	12.00	12.00
Do.	do	John Scott	John Scott	Private, Co. G, 5th Pa. Vol. Cav.	24.00	10.00	14.00

Do.....do	Charles Scott.....	Charles Scott.....	22.50	50.00	27.50
Nurse.....do	Kate M. Scott.....	Kate M. Scott.....	.....	50.00	12.00
Invalid.....do	Frederick Sten.....	Frederick Sten.....	.....	20.00	20.00
Do.....do	Charles T. Shaw.....	Charles T. Shaw.....	12.75	.....	11.25
Widow.....do	Narcissa G. Short.....	Narcissa G. Short.....	8.00	8.00	8.00
Invalid.....do	Peter Shelt.....	Peter Shelt.....	12.00	23.00	13.00
Widow.....do	Lorinda N. Smith.....	Lorinda N. Smith.....	8.00	20.00	8.00
Invalid.....do	Henry Smith.....	Henry Smith.....	12.00	30.00	8.00
Widow.....do	Marietta Elizabeth Stanton.....	Thaddeus H. Stanton.....	.....	30.00	30.00
Do.....do	Mary E. Starr.....	George Starr.....	8.00	120.00	112.00
Invalid.....do	Ordine R. Strickland.....	Jesse H. Strickland.....	12.00	50.00	50.00
Do.....do	Norman Stewart.....	Charles L. Summers.....	17.00	15.00	3.00
Do.....do	Catherine L. Taylor.....	Norman Stewart.....	12.00	17.00	2.00
Nurse.....do	Asa W. Taylor.....	George N. Tarburton.....	.....	20.00	8.00
Invalid.....do	John F. Townsend.....	Catherine L. Taylor.....	24.00	12.00	12.00
Do.....do	Martin V. Tulford.....	John F. Townsend.....	12.00	50.00	8.00
Do.....do	Bettie W. Ward.....	John F. Townsend.....	14.00	30.00	18.00
Widow.....do	Daniel Warren.....	Edwin W. Ward.....	17.00	24.00	14.00
Invalid.....do	Lizzie Watkins.....	Daniel Warren.....	.....	50.00	13.00
Widow.....do	George M. Wilson.....	Austin B. Watkins.....	24.00	50.00	28.00
Invalid.....do	Fideller White, alias William Johnson.....	George M. Wilson.....	12.00	12.00	12.00
Do.....do	Margaret G. White.....	Fideller White, alias William Johnson.....	.....	12.00	12.00
Widow.....do	Thomas M. Wimer.....	James H. White.....	8.00	30.00	30.00
Invalid.....do	Merit C. Welsh.....	Thomas M. Wimer.....	20.00	30.00	10.00
Do.....do	William C. Whitney.....	Merit C. Welsh.....	.....	.....	.....
Do.....do	Jane W. Wood.....	William C. Whitney.....	12.00	30.00	18.00
Dependent foster mother.....do	Rachel J. B. Williams.....	George W. Pratt.....	.....	12.00	12.00
Widow.....do	John G. Barr.....	Charles F. Williams.....	80.00	50.00	20.00
Invalid.....do	Mary Barr.....	John G. Barr.....	12.00	12.00	12.00
Widow.....do	Charles E. Binns.....	Francis Barron.....	.....	12.00	12.00
Invalid.....do	Ellish Baxter.....	Charles E. Binns.....	.....	12.00	12.00
Do.....do	Willis Brady.....	Ellish Baxter.....	12.00	30.00	18.00
Do.....do	William H. H. Bouslough.....	Willis Brady.....	.....	12.00	12.00
Do.....do	Lewis Black.....	William H. H. Bouslough.....	6.00	12.00	6.00
Do.....do	Samuel Baughman.....	Lewis Black.....	12.00	12.00	12.00
Do.....do	John F. Carbee.....	Samuel Baughman.....	6.00	12.00	6.00
Widow.....do	Ellie F. Coston.....	John F. Carbee.....	12.00	12.00	12.00
Do.....do	Annie Chamberlain.....	Ellie F. Coston.....	15.00	20.00	5.00
Do.....do	Mary L. Cramer.....	James A. Chamberlain.....	8.00	15.00	7.00
Do.....do	Elizabeth Causey.....	Mary L. Cramer.....	.....	15.00	8.00
Invalid.....do	Ezekiel Dawson.....	Elizabeth Causey.....	20.00	20.00	12.00
Do.....do	Ezekiel Dawson.....	Ezekiel Dawson.....	17.00	30.00	12.00

* Increase of \$12 per month to cease at death of helpless child.

† Increase of \$12 to continue only during lifetime of imbecile child, Emeline C. Starr.

‡ Exclusive of \$2 per month for one minor child.

TABLE No. 22.—Special acts granting pensions, passed at the second session of the Fifty-sixth Congress, arranged according to class, etc.—Continued.

Class.	Date of special act.	Name of beneficiary.	Name of soldier.	Rank and service.	Monthly rate—		Increase by reason of special act.
					By special act.	Prior to special act.	
Widow	Mar. 3, 1901	Hannah Martha Dusenberry	John E. Dusenberry	Private, Maj., W. P. Lane's Batt., Tex. Mtd. Vols.	\$8.00		\$8.00
Invalid	do	Isaac H. Duvall	Isaac H. Duvall	Brigadier-General, U. S. Vols.	50.00	\$80.00	20.00
Do	do	Milbore V. Douglass	Milbore V. Douglass	Sergeant, Co. F, 67th Pa. Vol. Inf.	40.00	30.00	10.00
Widow	do	McSelvina Greenawalt	Abraham Greenawalt	Quartermaster's Department, U. S. A.	12.00		12.00
Invalid	do	William N. Hall	William N. Hall	Quartermaster-sergeant, 18th U. S. Inf.	20.00	12.00	8.00
Do	do	John A. Hardy	John A. Hardy	Private, Co. H, 3d Ohio Vols.	12.00	8.00	4.00
Do	do	Marie E. Hamill	William Hamill	Sergeant, Co. E, 117th Ill. Vol. Inf.	12.00		12.00
Helpless child	do	Thomas Hunter	William Hunter	Private, Co. D, 111th N. Y. Vol. Inf.		30.00	30.00
Widow	do	Cornelia Hays	William Hays	Brigadier-General, U. S. Vols. and Col. in the U. S. A.	50.00		50.00
Invalid	do	John W. Horner	John W. Horner	Private, Co. C, 1st W. Va. Vol. Inf.	24.00	12.00	12.00
Do	do	James Hickey	James Hickey	Sergeant, Co. G, 4th Mich. Vol. Inf.	30.00	12.00	18.00
Do	do	Peter M. Hill	Peter M. Hill	Captain, Co. A, 5th Ohio Cav.	30.00	12.00	18.00
Do	do	Alfred H. Jones	Alfred H. Jones	Private, Co. B, 63d Pa. Vol. Inf.	50.00	36.00	14.00
Do	do	Emily S. Knight	Oliver M. Knight	2d Lieut., Co. B, 22d U. S. C. Vol. Inf.	15.00		15.00
Helpless child	do	Elizabeth M. Killen	James Killen	Corporal, sergeant, asst. surg., Co. D, 10th Ind. Vol. Inf.	12.00		12.00
Invalid	do	Thomas J. Kerstetter	Thomas J. Kerstetter	Corporal, Co's, E and B, 12th U. S. Inf.	50.00	24.00	26.00
Widow	do	Nellie T. P. Kochler	Edgar F. Kochler	1st Lieut., 9th U. S. Inf.	25.00	17.00	8.00
Helpless child	do	Katy Kurth	George Kurth	Private, Co. I, 18th Wis. Vol. Inf.	12.00		12.00
Widow	do	Arnilda J. Luttrell	Samuel Luttrell	Teamster, Q. M. Department, U. S. A.	8.00		8.00
Invalid	do	Eugene Leahy	Eugene Leahy	Coal heaver, U. S. N.	40.00	12.00	28.00
Do	do	Charles W. Little	Charles W. Little	Private, Co. C, 3d Vt. Vol. Inf.	30.00	12.00	18.00
Do	do	Levi C. Mann	Levi C. Mann	Private, Co. A, 7th Ill. V. J. Cav.	12.00		12.00
Do	do	Arline E. McNutt	James McNutt	Acting assaigant surgeon, U. S. A.	18.00		18.00
Widow	do	Charles M. Neet	Charles M. Neet	2d Lieut., Co. K, 14th Mo. Home Gds.	12.00		12.00
Invalid	do	Samuel A. Needham	Samuel A. Needham	Private, Co. I, 9th Ohio Vol. Cav.	17.00		17.00
Widow	do	Ellen Pratt	Albert Pratt	Artificer, Co. B, 4th U. S. Art.	12.00	8.00	4.00
Do	do	Margaret L. B. Parsons	Charles C. Parsons	Captain, 4th U. S. Art.	20.00	8.00	12.00
Invalid	do	Hix Patterson	Hix Patterson	Private, Co. K, 5th Tenn. Vol. Mtd. Inf.	12.00		12.00
Widow	do	Elizabeth Reynolds	Roddie Reynolds	Acting assaigant surgeon, U. S. A.	22.00	12.00	10.00
Invalid	do	Henry Smith	George B. Smith	Acting assaigant surgeon, U. S. A.	12.00		12.00
Do	do	Samuel C. Seabury	Samuel C. Seabury	Sergeant, Co. A, 11th Mass. Vol. Inf.	17.00	12.00	5.00
Widow	do	Francis M. Thompson	Francis M. Thompson	Corporal, Co. C, 18th Mass. Vol. Inf.	80.00	20.00	60.00
Invalid	do	Mary A. Tunis	Nehemiah Tunis	Captain, Ordnance Dept., U. S. A.	\$20.00		20.00
Widow	do	Grotius N. Udell	Nehemiah Tunis	Musician, Co. D, 21st Iowa Vol. Inf.	60.00	50.00	10.00
Invalid	do	Columbus S. Whitaker	Grotius N. Udell	Captain, Co. K, 15th N. J. Vol. Inf.	20.00	12.00	8.00
Do	do	Sallie B. Wilson	Columbus S. Whitaker	Private, Co. D, 6th Iowa Vol. Inf.	72.00	36.00	36.00
Widow	do		Sallie B. Wilson	Acting assaigant surgeon, U. S. A.	12.00		12.00
Total*					16,948.00	6,319.00	10,016.00

* Exclusive of \$2 per month for each of three minor children.

* Exclusive of \$2 per month for each of two minor children.

* Exclusive of two inoperative special acts and one special act rate not determined.

Recapitulation, special acts, Fifty-sixth Congress, second session.

Granting—		Granting—	
\$100	1	\$22	2
72	1	20	78
60	3	18	3
50	52	17	38
45	2	16	10
40	31	15	14
36	11	14	3
35	3	12	189
32	1	8	32
¹ 30	126	No benefit	1
25	24		
24	82	Total ¹	707

Number of acts originated in House..... 396
 Number of acts originated in Senate..... 311

Total..... 707

Net increase exclusive of two inoperative special acts and one special act, no benefit:

Per month..... \$10,016
 Per annum..... 120,192

TABLE NO. 23.—*Statement showing the number of applications for army pensions, under the general laws, filed during the fiscal year ended June 30, 1901.*

Original (new claimants):

Invalid	943
Widows	4,831
Minors	571
Mothers	171
Fathers	132
Brothers and sisters	16
	5,721
Total	6,664
With act of June 27, 1890, pending:	
Invalid	476
Widows	765
Minors	82
	847
Total	1,323
With act of June 27, 1890, admitted:	
Invalid	647
Widows	779
Minors	31
	810
Total	1,457
Applications for increase.....	41,406
Duplicate applications:	
Invalid	1,026
Widows	931
	1,957
Total	1,957
Army nurse applications.....	28
	52,835
Total general laws, except Spanish war	52,835

¹ Including 2 special acts inoperative.

TABLE No. 23a.—Statement showing the number of applications for army pensions under act of June 27, 1890, filed during the fiscal year ended June 30, 1901.

Original applications (new claimants):		
Invalid	7,571	
Widows	14,486	
Minors	996	
	<u>15,482</u>	
Total		23,053
With general laws, pending:		
Invalid	1,335	
Widows	2,654	
Minors	140	
	<u>2,794</u>	
Total		4,129
With general laws, admitted:		
Invalid	4,240	
Widows	70	
Minors	222	
	<u>292</u>	
Total		4,532
Applications for increase		72,293
Duplicate applications:		
Invalid	29,041	
Widows and minors	5,804	
	<u>34,845</u>	
Total		138,852
Total, act of June 27, 1890.....		138,852

TABLE No. 23b.—Statement showing the number of applications for army pensions, on account of the war with Spain, filed during the fiscal year ended June 30, 1901.

GENERAL LAWS.

Original (new claimants).		
Invalid	12,413	
Widows	367	
Minors	79	
Mothers	1,015	
Fathers	273	
Brothers and sisters	10	
	<u>1,744</u>	
Total		14,157
Applications for increase		627
Duplicate applications:		
Invalid	774	
Widows, etc.....	102	
	<u>876</u>	
Army nurse applications		4
Total, war with Spain		<u>15,664</u>
Act of March 3, 1901:		
Remarried widows		3,258
Duplicates		159
Total		<u>3,417</u>

TABLE NO. 23c.—Statement showing the number of applications for army pensions forwarded to the adjudicating divisions by the record division during the fiscal year ended June 30, 1901.

	Eastern division.	Western division.	Middle division.	Southern division.	Old War and Navy division.	Total.
<i>Act of June 27, 1890.</i>						
Invalid (original).....	2,141	1,641	1,694	1,506	569	7,571
Invalid (pending).....	364	292	311	242	126	1,336
Invalid (certificate).....	1,064	1,460	1,098	471	162	4,240
Widow, etc. (original).....	3,708	3,670	3,968	3,470	661	15,482
Widow, etc. (pending).....	608	854	768	481	138	2,794
Widow, etc. (certificate).....	58	86	66	82	5	292
Applications for increase.....	12,389	16,788	21,680	18,815	2,676	72,298
Duplicate applications, invalid.....	6,413	8,315	5,570	7,584	1,209	29,041
Duplicate applications, widow.....	1,184	1,669	1,509	1,252	240	5,804
<i>General laws.</i>						
Invalid (original).....	115	99	124	91	524	948
Invalid (pending).....	101	90	55	164	66	476
Invalid (certificate).....	129	149	165	166	38	647
Widow, etc. (original).....	1,143	1,715	1,485	983	396	5,721
Widow, etc. (pending).....	160	284	207	149	47	847
Widow, etc. (certificate).....	179	197	214	181	39	810
Applications for increase.....	6,915	13,209	13,516	5,944	1,822	41,406
Duplicate applications, invalid.....	134	202	241	262	187	1,026
Duplicate applications, widow.....	143	270	255	201	62	931
Army nurse applications.....					28	28
<i>War with Spain.</i>						
Invalid (original).....					12,413	12,413
Widow, etc. (original).....					1,744	1,744
Applications for increase.....					627	627
Duplicate applications, invalid.....					774	774
Duplicate applications, widow.....					102	102
Army nurse applications.....					4	4
Act of March 3, 1901.....	811	1,073	916	400	58	3,258
Act of March 3, 1901, duplicates.....	9	69	73	7	1	159
Total.....	37,648	52,117	53,900	42,351	24,767	210,768

TABLE NO. 24.—Classes of claims recorded in old war and navy division during fiscal year ending June 30, 1901.

Class of claims.	Survivors or invalids.			Widows.			Total.
	Original.	Additional or reissue.	Increase.	Original.	Additional or reissue.	Increase and accrued.	
Service prior to March 4, 1861:							
War of 1812, service pension.....				7		3	10
Indian wars.....	23		10	185		129	347
Mexican war.....	46		431	606		494	1,576
Total.....	69		441	797		626	1,933
Old war disability.....	19		97	27		31	174
Total for service prior to March 4, 1861.....	88		538	824		657	2,107
Service subsequent to March 4, 1861:							
Navy, general law.....	185	48	496	185	6	129	1,048
Navy, act of June 27, 1890.....	584	58	3,005	669	2	302	4,620
Navy, Spanish war.....	401	1	12	90		10	514
Total for service subsequent to March 4, 1861.....	1,170	107	3,512	944	8	441	6,182
Aggregate.....	1,258	107	4,050	1,768	8	1,098	8,289
Bounty land.....	119	13					122
Grand total.....	1,377	110	4,050	1,768	8	1,098	8,411

¹Duplicates.

TABLE No. 24a.—Statement showing the number of applications for navy pensions under the general law filed during the fiscal year ended June 30, 1901.

Original applications (new claimants):		
Invalid original	139	
Widows' original	167	
		306
With act of June 27, 1890, pending:		
Invalid original	46	
Widows' original	18	
		64
With act of June 27, 1890, admitted:		
Invalid	48	
Widow	6	
		54
Applications for increase		495
		919
Total, general law (except Spanish war)		919

—

Statement showing the number of applications for navy pensions under act of June 27, 1890, filed during the fiscal year ended June 30, 1901.

Original applications (new claimants):		
Invalid original	537	
Widows' original	652	
		1,189
With general law pending:		
Invalid original	47	
Widows' original	17	
		64
With general law admitted:		
Invalid	58	
Widow	2	
		60
Applications for increase		3,005
		4,318
Total, act of June 27, 1890		4,318

—

War with Spain—Statement showing the number of applications for navy pensions on account of the war with Spain filed during fiscal year ended June 30, 1901.

Original applications (new claimants):		
Invalid original	401	
Widows' original	90	
		491
Invalid reissue		1
Applications for increase		12
		504
Total, Spanish war, navy		504

TABLE No. 25.

BUREAU OF PENSIONS,
Washington, D. C., July 26, 1901.

SIR: Appreciating the desirability of relieving the medical division of the 15,000 or more claims therein accumulated when I assumed charge a little more than four years ago, and your desire that the work be kept as nearly "current" as possible, I aimed to dispose of the accumulation. In this I was cheerfully seconded by the medical

force of the division, so that my report for the fiscal year ending June 30, 1898, showed only about 1,000 claims awaiting medical action. My subsequent reports will show that at no time for the past three years has there been any accumulation. At the end of the fiscal year, June 30, 1901, not a single claim requiring medical action remained in this division, exclusive of 34 claims on appeal to the Secretary of the Interior. I do not believe that it has ever before in the history of the Bureau been possible to make such a report. To accomplish this, however, an unusual strain has been placed on the medical force, especially so during the fiscal year just past.

During the fiscal year ending June 30, 1901, medical action was taken on 234,610 current claims—all the claims submitted. In addition to these, 2,916 claims on appeal received medical consideration.

The latter are claims in which an appeal to the honorable Secretary of the Interior has been taken from the medical action of the Bureau. Under the established practice these claims are referred to the medical referee for his personal review and opinion in regard to the correctness of the medical action from which the appeal has been taken.

At the time of my last report the medical force of the division consisted of 74 physicians. Since then it has been reduced to 65—9 less—a reduction of about 12 per cent, yet the number of claims disposed of was only a little over 3½ per cent less than that of the preceding fiscal year.

The present force is absolutely too small to give claims the careful consideration that they should receive and at the same time avoid the accumulation of claims in the division.

It is false economy not to provide for a sufficient number of medical examiners to give each claim that careful, thorough consideration which will insure justice to both the Government and the claimant. The grave responsibility of determining the disposition of the great appropriation of nearly \$140,000,000 annually rests chiefly upon the medical force of this division, where all ratings are determined. In order that this trust may be executed in a careful, deliberate, and just manner, the medical force should be large enough to accomplish it without the unusual hurry that is now required.

I respectfully emphasize my former recommendations that Congress be asked to provide for 15 additional medical examiners, to be appointed from civil life through the Civil Service Commission. It has heretofore been possible to augment the force by detailing from other divisions of the Bureau clerks who are graduates in medicine, but this source of supply is now exhausted. Those who have been found qualified are now included in the force. It is advisable that those appointed shall have had several years' experience in active practice, to be the better qualified to determine the complex pathological questions in medicine and surgery that constantly arise.

I respectfully repeat my recommendation of former years that the salary of medical examiners be increased to at least \$2,000 a year.

I also repeat and earnestly urge my recommendation that Congress be asked to make an appropriation of \$250 to be expended by the honorable Commissioner for the purchase of standard works on medicine, surgery, and pathology.

There have been so many discoveries and such an accumulation of pathological knowledge within the last decade, so many theories exploded and facts established that the division is greatly embarrassed by the lack of the latest authorities. The interests of both the Gov-

ernment and claimants demand that, in the medical disposition of claims, the medical force of the Bureau should have access to the best and most recent authorities.

After more than three years' effort to improve the work of examining surgeons, it has been found that such effort has not been crowned with the measure of success hoped for and reasonably expected. It is to the credit of some boards that take an honest pride in their work that they are giving fairly satisfactory reports. Others are striving to do their work in a satisfactory manner, but for want of proper guidance fail to meet the requirements. I am convinced that these boards would furnish more satisfactory reports if they were given the benefit of the presence and instruction of a thoroughly qualified medical officer of the Bureau. Too many, however, apparently regard their duties and obligations to the Bureau in the lightest imaginable manner, their certificates bearing evidence of work done in a slipshod, haphazard manner. This faulty work is most frequently apparent in the inaccurate descriptions of disabilities and in the use of practically the same phraseology in describing a disability. For instance, one board in 20 examinations found valvular disease of the heart and described it in practically the same words in each case. Test examinations failed to confirm these reports. No amount of advice with special instructions has effected any material improvement.

Many boards apparently have no conception or appreciation of the importance of their duties, and quiet their consciences by submitting machine-made reports that are in the highest degree unreliable and unsatisfactory.

One board regarded its duties as fully performed when the secretary, having examined the claimants at his office, merely conferred over a telephone with the other members, after which all of them certified that they were present and personally participated at the examination.

At the beginning of the fiscal year supplemental instructions, containing comprehensive directions for the purpose of securing better examinations, more careful descriptions of disabilities, and more accurate rating, were furnished to examining surgeons. These instructions were followed, on August 22, 1900, by a circular letter of similar import. Later, at my suggestion, you caused the certificates of examination to be carefully reviewed by experienced medical examiners of this division, in the hope that the work of the boards might be improved. A carefully constructed circular letter, pointing out wherein many boards failed to furnish satisfactory certificates, and giving specific instructions and directions for their guidance was furnished to each examining surgeon. After about six months' experience, a voluminous correspondence, the suspension of orders to a large number of boards, the reorganization of some, and the dismissal and resignation of others, I can report improvement, but not to the extent that the effort merited.

It is well known that examining surgeons, in their zeal for their patrons, constitute themselves in many instances the agents of claimants. I might instance the case of one who in a stated time participated in three examinations of a claimant, in each examination certifying to the facts contained in the certificate showing that the claimant was not disqualified for earning his support by manual labor, and who during the same period filed five sworn statements testifying that the claimant was totally disabled for the performance of manual labor.

Both in personal interviews and by correspondence, examining surgeons have declared their fears that by recommending just and equitable ratings they would excite the enmity of the claimant and his friends. Again and again have claimants requested that their orders for examination be changed to another board, believing that such change would be to their advantage, because the board had a reputation of rating more liberally than the one before which they were originally ordered.

Under the present system of appointing examining surgeons there is no assurance that the best qualified will receive the appointment. There is no requirement whereby the fitness of the appointee may be tested. The chances are always in favor of the least qualified. The physician of high standing in his profession has, as a rule, neither time nor inclination to solicit political influence; neither has he the time nor taste to exert the political activity that would be regarded as sufficient to give him a claim to a place on a board. The physician who stands high in his profession is necessarily thoroughly equipped, is fully acquainted with the most recent means of intelligent diagnosis, is familiar with pathological sequences, and is ready to submit his qualifications to the test of a thorough examination; while the physician who seeks the place merely as a reward for political activity shrinks from having his medical, surgical, and pathological knowledge put to the test.

Taking into consideration all the complaints, real and imaginary, against the office, the knowledge of the Bureau that reports of examining surgeons are unreliable, the failure to secure intelligent, thorough, and complete certificates, notwithstanding the efforts of the Bureau during thirty years—efforts growing more and more insistent year by year—it is surprising that no change has been made in the system. It is equally surprising that examining surgeons, upon whose reports depend the equity of the claimant and the protection of the Government in the disbursement of the many millions yearly appropriated for pensions, are not required to show a fitness for the position, and that no provision is made to give them that personal, practical, instruction that will better qualify them for the proper performance of their responsible duties. The unreliable and inconsistent character of the work of examining surgeons under the present system can be shown by the following example: One board reports a claimant disabled from several disabilities—rheumatism, disease of the heart, disease of the liver and spleen, etc., but a test examination within a month or two by another board shows no disability from any of these causes. In a number of instances when certificates have been returned to examining surgeons, inviting attention to the sameness of the descriptions contained in the certificates and directing that claimants be recalled and reexamined, the result has been that at the second examination the same board has reported materially different conditions. Many organs originally reported as seriously diseased were subsequently described as normal, notwithstanding that in the nature of things the diseases originally reported could not possibly disappear in the course of a month or two, but, on the contrary, would be permanent.

These inconsistencies are brought to your attention nearly every day, especially since a more rigid scrutiny of certificates is made. Nine experienced medical men (one-seventh of the medical force) are engaged in reviewing the certificates of medical examinations, yet the work of examining surgeons, in general, shows but very little permanent improvement.

The Bureau should be able to secure reports of medical examinations of such character that the only review necessary would be for the purpose of detecting the occasional omission of some important data, thus requiring only one or two men to perform this duty.

The records show that during the fiscal year 296 examining surgeons resigned, and 100 were dismissed. Orders to 27 boards have been suspended during the year, and have been resumed in only 12 instances. Orders were also resumed in 9 boards that have been suspended prior to July 1, 1900.

During the fiscal year 7,254 original claims under the general law were admitted and 9,907 were rejected. Other claims admitted under this law numbered 18,807, while 29,848 were rejected. The rates in 152 claims were reduced, and in 39 claims the pensioners' names were dropped from the rolls. Sixteen thousand four hundred and fifty-one claims were returned with medical opinions, and 15,041 examinations were ordered.

Under the act of June 27, 1890, there were 31,949 original claims admitted and 13,449 rejected. Other claims admitted under this act numbered 25,736, and 33,774 were rejected, including claims under the act of March 6, 1896; the rates in 7 claims were reduced, and in 6 the pensioners' names were dropped from the rolls; 6,276 examinations were ordered, and 24,478 claims were returned with medical opinions.

The number of appeal claims considered was 2,916.

The total number of orders recorded and mailed by this division was 227,880. Claimants having failed to appear for examination, 29,449 orders were returned. The total number of examinations ordered on instructions from this division was 21,317, of which number 4,745 were to specialists, 1,162 to civil surgeons, 432 to foreign surgeons, 229 to post, army, hospital, and Indian agency surgeons, while 2,927 were for home or special examinations, making 9,495 issued with special instructions. Of these 9,495 orders, 8,043 certificates were received and 1,452 are outstanding. There were 189,920 surgeons' certificates accepted, 26,762 returned for amendment, and 431 rejected. The total number of examinations approved for payment was 163,267, and the amount of accounts approved for payment was \$829,569.91.

Two thousand seven hundred and twenty-one letters were typewritten, and 152,000 envelopes were addressed. A copy of the supplemental instructions to examining surgeons, issued June 30, 1900, was mailed to each examining surgeon. Nearly 4,000 mimeograph copies of the circular of August 22, 1900, were mailed to the surgeons of the Bureau. Five thousand four hundred and ten copies of the circular letter to examining surgeons, issued January 3, 1901, were mailed, one copy to each examining surgeon. Other circulars, numbering 4,890, were mailed to examining surgeons. Seventy-five thousand new form certificates were forwarded. Congressional inquiries numbering 1,350 were answered. Nearly 10,000 circular letters were mimeographed during the year, and 572 registers from boards and single surgeons were received, receipted for, recorded, tagged, and filed.

Accompanying this report is a tabulated statement of the work performed during the fiscal year.

Very respectfully,

J. F. RAUB,
Medical Referee.

Hon. H. CLAY EVANS,
Commissioner of Pensions.

Number of orders issued and certificates of examination received and amount of accounts approved for payment.

Examinations ordered (all classes)	21, 317
Cases designated	20, 910
Orders recorded	227, 880
Certificates recorded and sent to case	189, 920
Certificates returned for amendment	26, 762
Certificates rejected	431
Orders returned, claimants having failed to appear	29, 449
Total number of examinations approved for payment	163, 267
Amount of accounts (for examinations) approved for payment	\$829, 569. 91

Number of orders issued and certificates of examination received (special classes).

	Examina- tions ordered.	Certificates received.	Orders and certificates outstanding.
Home	2, 927	2, 619	308
Expert	4, 745	4, 068	677
Civil	1, 162	876	286
Foreign	432	321	111
Post, army, hospital, and Indian agency surgeons	229	159	70
Total	9, 495	8, 048	1, 452

Report of claims acted upon by the medical division during the fiscal year ended June 30, 1901.

General law:	
Original admitted	7, 254
Original rejected	9, 907
Other claims admitted	18, 807
Other claims rejected	29, 848
Reduced	152
Dropped	39
Returned with medical opinion	16, 451
Examinations ordered	15, 041
Total	97, 499
Act of June 27, 1890:	
Original admitted	31, 949
Original rejected	13, 449
Other claims admitted	25, 736
Other claims rejected	33, 774
Reduced	7
Dropped	6
Returned with medical opinion	24, 478
Examinations ordered	6, 276
Total	135, 675
Special opinions to Commissioner and deputy commissioners	1, 436
Grand total, actions	234, 610
Cases	230, 708
Actions	234, 610
Number of claims on hand June 30, 1901	0
Number of appeal claims considered	2, 916
Number of appeal claims on hand June 30, 1901	34

TABLE No. 26.

BUREAU OF PENSIONS, BOARD OF REVIEW,
Washington, D. C., August 8, 1901.

SIR: In accordance with my duty, I have the honor to transmit herewith the report of work for the year ending June 30, 1901.

As another twelve months of official action has come to a close, it is well to look for and consider that which has characterized it in the way of improvement and benefit; and, in this connection, while the labor of the board has been arduous, it gives me pleasure to state that by the faithfulness and industry of the force the work has at all times of the year been practically current.

There has also been improvement in the character of the work performed in a more intelligent application of the statutes, in connection with their construction by decisions and rulings, and in properly estimating the weight and value of records and testimony making the history of claims considered.

Such improvement naturally results, in part, from greater experience, but the larger factor, I think, has been the result of the recognized necessity for careful study and wise judgment in the proper settlement of the many intricate questions involved.

Conscientious personal responsibility tends to right action, and I have endeavored to inculcate the application of this principle in the disposition of claims by the reviewers.

I take this occasion to express my thanks for your continued consideration and generous aid in support of my administration of the affairs of the board, and to acknowledge the efficient and helpful service of my immediate assistants, and my obligations to all the members of the board for their attention to duty and faithful and intelligent work.

Very respectfully,

T. W. DALTON,
Chief, Board of Review.

Hon. H. CLAY EVANS,
Commissioner of Pensions.

TABLE No. 26.—*Work report of the board of review for fiscal year ended June 30, 1901.*

	Admitted.	Rejected.	Returned to adjudicating divisions.	Referred to other divisions.	Total.
Original invalid:					
Act of June, 1890	24, 999	23, 513	7, 426	198	56, 136
General law	1, 333	8, 085	3, 460	424	18, 302
Mexican war	15	33	13	1	62
Indian war	7	16	6	.....	29
Spanish war	2, 798	5, 486	1, 457	16	9, 757
Bounty land	4	14	2	.....	20
Total	29, 156	37, 147	12, 364	689	79, 306
Original widows and dependents:					
Act of June, 1890	16, 615	3, 708	8, 072	696	29, 090
General law	3, 390	6, 706	4, 072	696	14, 636
Mexican war	842	58	55	12	467
Indian war	130	48	29	5	212
Spanish war	1, 238	644	702	34	2, 618
Bounty land	9	15	2	.....	26
Army nurses	24	35	6	.....	65
Total	21, 748	11, 214	12, 938	1, 214	47, 114
Total original	50, 904	48, 361	25, 302	1, 853	126, 420

TABLE No. 26.—Work report of the board of review for fiscal year ended June 30, 1901—Continued.

	Admitted.	Rejected.	Returned to adjudicating divisions.	Referred to other divisions.	Total.
Invalid increase and restoration:					
Act of June, 1890.....	25,814	35,341	8,669	194	65,018
General law.....	14,823	28,558	2,007	154	45,542
New disabilities.....	768	6,580	2,881	267	10,441
Increase and reissue, Mexican war.....	242	223	44	6	515
Increase and reissue, Indian war.....	18	1	2	.....	16
New disabilities, increase and reissue, Spanish war.....	81	142	15	4	242
Invalid act Mar. 6, 1896 (no increase pending).....	.....	182	.....	.....	182
Reissue, bounty land.....	2	.....	.....	.....	2
Reissue, nurse.....	.....	.....	1	1	2
Total.....	41,738	70,977	8,619	626	121,960
Widows' increase:					
Act of June, 1890.....	219	144	122	298	778
General law.....	301	197	159	111	768
Reissue and restoration—					
Mexican war.....	12	5	1	5	23
Indian war.....	1	.....	1	1	3
Spanish war.....	69	1	4	3	77
Total.....	602	347	287	418	1,649
Accrued:					
Act of June, 1890.....	7,748	251	1,776	99	9,874
General law.....	5,746	145	1,160	52	7,103
Mexican war.....	289	7	81	3	380
Indian war.....	108	1	12	1	122
Spanish war.....	9	1	1	.....	11
Total increase and accrued.....	13,900	405	2,980	155	17,440
Grand total.....	107,144	120,090	37,188	3,047	267,469

SUMMARY OF REJECTED CASES.

	Act of June 27, 1890.	General law and other laws.	Total.
On legal grounds.....	7,128	15,125	22,248
On medical grounds.....	.....	.....	97,842
Total.....	.....	.....	120,090

Of the above total number, 1,850 claims under the general law and 7,986 under the act of June 27 1890, were formally disposed of by rejection on the ground of "no benefit," the claimants being already in receipt of an equal or higher rate of pension under another law.

Appeals to the Secretary of the Interior from the rejection of claims.

Number of appeals received.....	6,315
Number of claims in which the action of the Bureau has been affirmed.....	4,471
Number of claims in which the action of the Bureau has been reversed.....	548
Number of appeals dismissed.....	411
Number of cases acted upon by the Secretary.....	5,428

TABLE No. 27.—Statement showing value of pension roll June 30 of each year and amount paid during the fiscal year.

Year.	Annual value of pension roll.	Amount paid each year.	Average annual value of each pension.	Average annual value under general law.	Average annual value under act June 27, 1890.
June 30—					
1890.....	\$72,052,143			\$133.94	
1891.....	89,241,200	\$116,979,172		131.99	\$121.51
1892.....	116,879,867	139,159,356	\$133.41	144.36	116.20
1893.....	130,510,179	156,740,467	135.10	157.65	113.75
1894.....	130,120,863	139,904,461	134.20	155.08	115.12
1895.....	130,048,365	139,807,337	133.99	158.39	112.15
1896.....	129,485,587	138,214,761	133.39	161.05	109.65
1897.....	129,795,428	139,949,717	133.17	162.04	109.25
1898.....	130,968,465	144,651,879	131.79	163.21	108.11
1899.....	131,617,961	138,355,063	132.74	165.70	108.99
1900.....	131,534,544	138,462,130	132.39	167.53	108.28
1901.....	131,568,216	138,531,483	131.87	168.67	108.09

NOTE.—June 30, 1890, the annual value of the roll was \$72,052,143. The act of June 27, 1890, had just passed, under which many claims were allowed, and the next year there was paid out \$116,979,172. June 30, 1891, the value being \$89,247,200, there was paid out the fiscal year following \$139,159,356. The annual value of the roll had grown to \$116,879,867 by the close of that fiscal year—June 30, 1892—and there was paid out the following year \$156,740,467. The difference between the annual value at the close of the year and the amount paid the following year is accounted for by first payments, reissues from new law to old, accrued pensions, and payments to widows and minors whose pensionable period has passed and the accumulated pension is granted and the pensioner comes on the roll for the one payment, then is dropped under "death," "marriages," "minors," or "for other causes." The annual value of the roll June 30, 1899, was greater than ever before.

TABLE No. 28.—Showing number of employees, amounts appropriated for salaries and for special examinations from July 1, 1864.

Year.	Number of employees.	Amounts appropriated for salaries.	Amounts appropriated for expenses, account special examinations. ¹	Year.	Number of employees.	Amounts appropriated for salaries.	Amounts appropriated for expenses, account special examinations. ¹
1865.....		\$236,340.00		1884.....	1,555	\$1,941,550.00	\$870,185.73
1866.....		236,165.00		1885.....	1,682	2,195,353.80	590,000.00
1867.....		308,361.49		1886.....	1,682	2,164,650.00	590,000.00
1868.....		365,186.20		1887.....	1,554	2,031,120.27	510,000.00
1869.....		367,275.30		1888.....	1,554	2,018,750.00	415,000.00
1870.....		353,660.00		1889.....	1,554	2,018,750.00	415,000.00
1871.....		367,418.03		1890.....	1,554	2,018,750.00	415,000.00
1872.....		436,315.71		1891.....	2,009	2,425,357.06	415,000.00
1873.....	334	456,049.00		1892.....	2,009	2,506,810.00	215,000.00
1874.....	342	446,580.00		1893.....	2,009	2,506,810.00	225,000.00
1875.....	459	464,821.21	\$40,000.00	1894.....	2,009	2,491,810.00	400,000.00
1876.....	364	468,901.21	40,000.00	1895.....	2,005	2,487,037.39	500,000.00
1877.....	359	446,765.60	50,000.00	1896.....	1,836	2,281,710.00	500,000.00
1878.....	338	444,430.00	40,000.00	1897.....	1,836	2,281,710.00	500,000.00
1879.....	378	493,256.70	40,000.00	1898.....	1,836	2,281,710.00	450,000.00
1880.....	379	582,624.30	40,000.00	1899.....	1,741	2,166,210.00	400,000.00
1881.....	520	687,155.00	40,000.00	1900.....	1,741	2,166,210.00	400,000.00
1882.....	723	900,536.00	125,000.00	1901.....	1,741	2,166,210.00	400,000.00
1883.....	1,559	1,926,848.77	300,000.00	1902.....	1,741	2,166,210.00	400,000.00

¹ Prior to 1875 the cost of examinations of claims was paid from the appropriation for "Contingent fund."

² 150 special examiners for field examinations, added by Commissioner Dudley, have been continued each year since at \$1,300 per annum, \$195,000, and are included in number of employees and amount in appropriations.

TABLE No. 29.

BUREAU OF PENSIONS,
July 10, 1901.

Hon. H. CLAY EVANS,
Commissioner of Pensions.

SIR: I have the honor to report that the general work of the Bureau, so far as it has come under my observation and supervision, has been intelligently and, as a rule, faithfully performed.

It is difficult at all times to so distribute the official force as to obtain the best results and meet the immediate needs of the service. Work requiring physical exertion must necessarily be performed by those having the strength to do it.

With a force of employees nearly one-half of whom average 60 years of age, and 500 of whom are old soldiers, it follows that the burden of the heavier work must fall on the few, and it is to these clerks who have so frequently responded to calls for their services on duties detached from their desks and divisions that I wish to extend my personal thanks.

The popular idea of Government clerks is that they are pampered individuals, with little to do but draw their salaries and furnish food for scandals.

The fact is, they simply represent the average of humanity—possibly no better, but certainly no worse, than will be found in the same aggregation of workers in any business, trade, or workshop in the world.

As one of them, let me state that, as a class, we are sober, industrious, and respectable citizens; we save or we scatter abroad according to our individual propensities; we love holidays, and take all the annual leave the law allows; we work because we recognize our duties and because promotion lies in that direction; we sometimes think it necessary to cultivate our "influence," but in the end find that merit is its own reward; we give generously to charitable purposes, and our pocketbooks open quickly to the cry of distress; we regard our honor and character and wish to merit the good will and esteem of the general public, whose servants we are.

The work of the Bureau begins and ends in the mail division, where the application is received and from which the certificate is mailed.

Below will be found a tabulated statement of the work done in the mail division for the year ended June 30, 1901, and, for the purpose of comparison, the work for the preceding three years:

	1898.	1899.	1900.	1901.	Grand total.
Applications:					
Old law	95,372	62,951	69,608	74,061	.....
Act June 27, 1890	123,117	83,223	114,082	133,700	.....
War with Spain		18,707	14,791	14,827	.....
Total	218,489	164,881	198,481	222,588	804,439
Mail received exclusive of applications..	3,871,545	3,856,971	3,153,406	3,127,101	.....
Outgoing mail.....	2,476,933	2,251,660	2,172,370	2,087,373	.....
Total, including applications	6,566,967	5,773,512	5,524,257	5,437,082	23,301,798
Money received in mail—restitutions....	\$7,444.31	\$11,882.60	\$15,619.10	\$8,851.12	\$43,797.13

An important change made during the past year was the consolidation of the army and navy survivors' division with the record division. Economy in time and simplicity in method it is confidently expected will result from the consolidation of these two divisions.

The chief of the record division reports that during the past year 210,768 applications were forwarded to the various adjudicating divisions.

The mail division reports the receipt of 222,000 applications of all classes during the year, and the difference, over 11,000, between the number received in the mail division, and distributed by the record division, will be carried over to the record division work for 1902.

As representing the details of the work of this division it may be

stated that there are 58 classifications of work, such as applications examined, 219,351; applications jacketed, 173,000; magistrates verified, 78,962; evidence and letters searched, 139,992; claims recorded and reviewed in copying records, 75,165; survivors' slips written, 10,648, etc., representing in all about 3,000,000 items.

The chief of the admitted files reports work done in that division considerably in excess of that for last year, as will appear from the table herewith:

	Cases drawn.	Cases filed.	Evidence applied.	Total.
For the year ended June 30—				
1901	372,250	320,257	33,275	725,772
1900	310,746	309,384	21,608	641,688
Increase over 1900	61,494	10,923	11,672	84,089

The chief, and those employed in this division, are entitled to commendation for the patience and care displayed in the laborious details of the work.

In order to relieve the congestion of the pending files, and for the more important purpose of avoiding the wear and tear of frequent handling, you instructed that all cases which were apparently abandoned by the claimant, or attorney of record, and in which no evidence had been recently filed, should be withdrawn from the pending files and placed by themselves.

With this end in view several rooms adjoining the admitted files were prepared with the proper shelving and 215,690 cases placed in the new files, under the care of a competent chief and the necessary assistants.

The system has worked satisfactorily, and its value can be easily demonstrated.

Cases in the various adjudicating divisions are filed in numerical order. Every time a case drawer is opened to file new evidence, or to draw a case for any purpose, all the cases therein are subjected to the wear and tear of handling, with the result that the case jackets wear out and the indorsements thereon become obliterated.

Under the new system these claims, many of them dating back to a period near the close of the war and from year to year since then, rest in comparative safety, and the change of location in no manner affects the rights of the claimants, who can at any time call up their cases, and upon filing evidence affecting the merits of the claims they are at once withdrawn and placed in the pending files.

Less than 9 per cent of these cases have been withdrawn from the files during the period since the system was instituted, and on an average one-half have been returned because no effort was made by the claimants to revive their claims.

The clerk in charge of the attorneys' room reports that during the past year 28,427 cases were drawn for personal consideration of attorneys.

From July 1, 1900, to June 30, 1901, there were 76 changes on the roster of employees of the Pension Bureau, divided as follows: Resignations, 38; deaths, 33; transfers to other bureaus, 5.

The average age of those who died was 60 years; the youngest on the list being over 30 and the oldest 80 years of age.

The time records are kept according to the calendar and not the fiscal year. Therefore the estimates as given are from the 1st of January to the 31st of December.

The general average of annual, sick, and without-pay leave during the years ending December 31, 1897, 1898, and 1900 was as follows:

	Annual.	Sick.	Without pay.	General average.
1897	29	10.8	2	42
1898	29.2	6.6	2.3	38.1
1899		7.66		
1900	29.16	9.25	2.88	41.30

In 1899 the report was not summarized as above, as you called for certain special information relative to sick grants, which was furnished and appears in the report of the chief clerk in your annual report for 1900.

It will be noted that the average of annual leave for the years above quoted is but little short of the total of allowance.

The general average of sick leave is a more variable quantity, and in the years reported the maximum, in 1897, 10.8, and the minimum the year following, 6.6.

The sick leave taken during the year ending December 31, 1900, is considerably in excess of that taken during the two preceding years, 9.25. This is believed to have been due to the intense heat during the summer of that year and the prevalence of la grippe during the winter months, and further from the fact that the Attorney-General, in an opinion dated October 25, 1898, held "that the heads of departments are relieved from the duty of considering exceptional and meritorious features and the element of peculiar hardship in connection with applications for sick leave."

It may be stated, however, that quite an appreciable percentage, the exact amount not ascertained, of annual leave during the past year was taken because of personal sickness. Many employees, desiring to keep their sick account clear of charge, have requested annual leave in lieu of sick.

In conclusion, when the fact that the work of the Bureau was practically at a standstill for ten days during the inauguration period, and that during the winter and spring months la grippe was epidemic, and the sick reports showed an average of nearly 100 per day absent on account of sickness, it is certainly a cause of congratulation that your annual report for the year just closed should show such a creditable amount of work performed by the Bureau.

Very respectfully,

W. H. BAYLY,
Chief Clerk.



NORTH COURT OF GREAT HALL, PENSION BUILDING.

ADDENDA.

COMMISSIONERS OF PENSIONS SINCE 1861.

Name.	Whence appointed.	Date of commission.
Barrett, Joseph H.....	Ohio.....	Apr. 15, 1861
Cox, Christopher C.....	Maryland.....	July 28, 1868
Van Aernam, Henry.....	New York.....	May 1, 1869
Baker, James H.....	Minnesota.....	Apr. 20, 1871
Atkinson, Henry M.....	Nebraska.....	Mar. 26, 1875
Gill, Charles R.....	Wisconsin.....	Feb. 10, 1876
Bentley, John A.....	do.....	Mar. 28, 1876
Dudley, William W.....	Indiana.....	June 27, 1881
Clarke, Otis P. G.....	Rhode Island.....	Nov. 15, 1884
Black, John C.....	Illinois.....	Mar. 19, 1885
Tanner, James.....	New York.....	Mar. 27, 1889
Raum, Green B.....	Illinois.....	Oct. 19, 1889
Lochren, William.....	Minnesota.....	Apr. 13, 1893
Murphy, Dominic J.....	Pennsylvania.....	May 28, 1896
Evans, Henry Clay.....	Tennessee.....	Apr. 1, 1897

OFFICIAL ROSTER OF THE BUREAU OF PENSIONS.

Name.	Office.	Whence appointed.
* Henry Clay Evans.....	Commissioner.....	Tennessee.
* James L. Davenport.....	First deputy commissioner.....	New Hampshire.
* Leverett M. Kelly.....	Deputy commissioner.....	Illinois.
William H. Bayly.....	Chief clerk.....	Pennsylvania.
Walter J. Brooks.....	Assistant chief clerk.....	Do.
* Jacob F. Raub.....	Medical referee.....	Do.
Charles F. Whitney.....	Assistant medical referee.....	Illinois.
Stephen A. Cuddy.....	Law clerk.....	Wisconsin.
* Thomas W. Dalton.....	Chief board of review.....	New Jersey.
Alvin L. Craig.....	Chief special examination division.....	Pennsylvania.
Charles M. Bryant.....	Chief old war and navy division.....	Do.
* Warner Wilhite.....	Chief western division.....	Indiana.
Frank A. Warfield.....	Chief middle division.....	Connecticut.
* John S. Garrison.....	Chief eastern division.....	Michigan.
John W. Watson.....	Chief southern division.....	California.
* Gilbert C. Kniffin.....	Acting chief record division.....	Kentucky.
* Adolphus B. Bennett.....	Chief certificate division.....	New York.
William L. Soleau.....	Chief finance division.....	Maryland.
* John Hancock.....	Chief stationery division.....	Florida.
* T. Mannell Hermann.....	Acting chief mail division.....	Oregon.
George W. Barnes.....	Superintendent of building.....	Pennsylvania.

* Served in Union Army or Navy during the civil war.

Number and classification of employees in the Bureau, with amount of appropriation for salaries.

1 Commissioner, at \$5,000	\$5,000
1 First Deputy Commissioner, at \$3,600	3,600
1 Second Deputy Commissioner, at \$3,600	3,600
1 chief clerk, at \$2,250	2,250
1 assistant chief clerk, at \$2,000	2,000
1 medical referee, at \$3,000	3,000
1 assistant medical referee, at \$2,250	2,250
2 qualified surgeons, at \$2,000	4,000
38 medical examiners, at \$1,800	68,400
10 chiefs of division, at \$2,000	20,000
1 law clerk, at \$2,000	2,000
58 principal examiners, at \$2,000	116,000
20 assistant chiefs of division, at \$1,800	36,000
3 stenographers, at \$1,600	4,800
70 clerks of class 4, at \$1,800	126,000
85 clerks of class 3, at \$1,600	136,000
330 clerks of class 2, at \$1,400	462,000
150 special examiners, at \$1,300	195,000
400 clerks of class 1, at \$1,200	480,000
250 clerks, at \$1,000	250,000
160 copyists, at \$900	144,000
1 superintendent of building, at \$1,400	1,400
2 engineers, at \$1,200	2,400
1 cabinetmaker, at \$900	900
1 painter, at \$900	900
33 messengers, at \$840	27,720
12 assistant messengers, at \$720	8,640
20 messenger boys, at \$400	8,000
1 captain of watch, at \$840	840
3 sergeants of watch, at \$750	2,250
20 watchmen, at \$720	14,400
3 fireman, at \$720	2,160
35 laborers, at \$660	23,100
10 female laborers, at \$400	4,000
15 charwomen, at \$240	3,600
<hr/>	
1,741	2,166,210

Examining surgeons, July 1, 1901.

States.	Boards of three phy- sicians.	Single surgeons.	Special- ists.
Alabama	11	2	2
Arizona	1	1	1
Arkansas	23	2	8
California	23	3	4
Colorado	19	9	2
Connecticut	10	1	2
Delaware	3	.....	1
District of Columbia	3	.....	4
Florida	4	6	1
Georgia	8	4	1
Idaho	1	7	.....
Illinois	93	3	18
Indiana	88	1	15
Indian Territory	7	2	.....
Iowa	85	3	11
Kansas	82	7	7
Kentucky	74	1	8
Louisiana	4	2	2
Maine	25	3	4
Maryland	12	1	2
Massachusetts	22	4	6
Mexico	1	1	.....
Michigan	58	4	7

Examining surgeons, July 1, 1901—Concluded.

States.	Boards of three physicians.	Single surgeons.	Specialists.
Minnesota	47	2	2
Mississippi	6	4	1
Missouri	91	2	11
Montana	5	4	.....
Nebraska	51	7	3
Nevada	1	.....	.....
New Hampshire	12	2	1
New Jersey	12	3	2
New Mexico	4	5	.....
New York	62	7	15
North Carolina	10	9	.....
North Dakota	10	.....	.....
Ohio	95	.....	23
Oklahoma Territory	16	.....	1
Oregon	15	12	1
Pennsylvania	87	9	16
Rhode Island	3	.....	1
South Carolina	2	.....	.....
South Dakota	22	7	.....
Tennessee	43	2	7
Texas	12	9	3
Utah	2	2	.....
Vermont	15	.....	1
Virginia	8	3	.....
Washington	15	6	.....
West Virginia	32	3	4
Wisconsin	48	3	4
Wyoming	3	3	.....
Total	1,385	171	186

SUMMARY.

1,385 boards, 3 surgeons each	4,155
Designated single surgeons	171
Designated specialists	186
Total	4,512

PENSION AGENTS.

Name and agency.	Whence appointed.	Date of original appointment.	Date of present appointment.	Compensation.
AUGUSTA, ME.				
* Connor, Se den	Me	Apr. 6, 1897	Apr. 6, 1901	\$4,000
BOSTON, MASS.				
* Hoitt, Augustus J.	Mass.	Apr. 27, 1898	Apr. 27, 1898	4,000
BUFFALO, N. Y.				
* Orr, Charles A	N. Y.	Jan. 13, 1898	Jan. 13, 1898	4,000
CHICAGO, ILL.				
* Merriam, Jonathan	Ill	Jan. 13, 1898	Jan. 13, 1898	4,000
COLUMBUS, OHIO.				
* Jones, Joseph W.	Ohio	July 8, 1898	July 8, 1898	4,000
CONCORD, N. H.				
* Henry, Hugh	Vt	Apr. 12, 1898	Apr. 12, 1898	4,000
DES MOINES, IOWA.				
* Sperry, Emery F.	Iowa	July 21, 1898	Dec. 14, 1898	4,000
DETROIT, MICH.				
* Jones, Oscar A	Mich	Mar. 8, 1897	Mar. 8, 1897	4,000

*Served in Union Army or Navy during the civil war.

Pension agents—Concluded.

Name and agency.	Whence appointed.	Date of original appointment.	Date of present appointment.	Compensation.
INDIANAPOLIS, IND.				
* Leighty, Jacob D	Ind	Aug. 21, 1897	Jan. 13, 1898	\$4,000
KNOXVILLE, TENN.				
* Wilder, John T	Tenn ...	Nov. 8, 1897	Jan. 13, 1898	4,000
LOUISVILLE, KY.				
Combs, Leslie	Ky	May 3, 1898	Dec. 13, 1900	4,000
MILWAUKEE, WIS.				
* Coe, Edwin D	Wis	Sept. 16, 1897	Jan. 13, 1898	4,000
NEW YORK, N. Y.				
* Kerwin, Michael	N. Y.	Apr. 30, 1898	Apr. 30, 1898	4,000
PHILADELPHIA, PA.				
* Mulholland, St. Clair A	Pa	Mar. 9, 1894	Mar. 9, 1898	4,000
PITTSBURG, PA.				
* Nesbit, John W	Pa	Dec. 18, 1897	Dec. 18, 1897	4,000
SAN FRANCISCO, CAL.				
* Fuller, Jesse B	Cal	July 18, 1898	July 18, 1898	4,000
TOPEKA, KANS.				
* Leland, Cyrus, jr	Kans ...	July 20, 1897	July 20, 1897	4,000
WASHINGTON, D. C.				
* Willson, Sidney L	N. Y.	Jan. 22, 1885	Feb. 1, 1898	4,000

* Served in Union Army or Navy during the civil war.

NOTE.—Employees at pension agencies were made subject to the civil-service rules for appointment by the extension of the classification by the President's order of July 15, 1895.

NOTE.—Term of office expires four years from "Date of present appointment."

TWO SYSTEMS—LAWS—GENERAL AND ACT JUNE 27, 1890, AS AMENDED
BY ACT OF MAY 9, 1900, COMPARED.

INVALID PENSIONS.

Acts of July 14, 1862, and March 3, 1873.

(Number pensioned, 301,230.)

Title to pension under the acts of July 14, 1862, and March 3, 1873, is conferred upon those who, since the 4th day of March, 1861, have been or who are hereafter disabled by reason of any wound or injury received or disease contracted while in the military or naval service of the United States and in the line of duty, and who have made or shall make due proof of the fact according to such forms and regulations as are or may be provided in pursuance of law

INVALID PENSIONS.

Act of June 27, 1890, as amended by act of May 9, 1900.

(Number pensioned, 438,114.)

Title to pension under the second section of the act of June 27, 1890, is conferred upon those persons—

(1) Who served ninety days or more in the military or naval service of the United States during the late war of the rebellion, and who have been honorably discharged therefrom; and

(2) Who are now or who may hereafter be suffering from any mental or physical disability of a permanent character, not the result of their own vicious habits, which so incapacitates them from the performance of manual labor as to render them unable to earn a support.

In addition to those who were regularly mustered into the military or naval service of the United States, provision is made under the general law for pensions to persons who rendered service as pilots upon gunboats or war vessels of the United States, acting assistant or contract surgeons, provost-marshals, deputy provost-marshals, and enrolling officers.

The pension for "total disability" is fixed by section 4695, Revised Statutes, the rates being graded according to rank in the service, and ranging from \$8 per month (rank of private) to \$30 per month (rank of lieutenant-colonel and officers of higher rank). Other and higher rates of pension are, however, provided for specific disabilities, the highest rate being \$100 per month for loss of both hands.

The act of March 3, 1873 (sec. 4699, Rev. Stat.), provides that the rate of \$18 per month may be proportionately divided for any degree of disability for which section 4695 makes no provision, and under this section the rates for several disabilities may be added in making a rate in excess of the "total" rate established by section 4695, where the total does not exceed \$17 per month. This provision is not applicable to rates of pension for any period prior to March 3, 1873.

The rate of pension provided for those who are entirely incapacitated for performing any manual labor is \$30 per month.

The act of August 27, 1888, grants a pension of \$30 per month in cases of total deafness, and such proportion thereof in

Pension under this act is limited to persons regularly enlisted or mustered into the military or naval service of the United States who served therein for ninety days or more *during the late war of the rebellion*, and were honorably discharged therefrom. Pilots in the naval service, contract surgeons, provost-marshals, deputy provost-marshals, and enrolling officers are excluded from the benefits of this act.

It will be seen that the act of June 27, 1890, provides a pension for a condition not due to the service, fixing the highest rate of pension thereunder at \$12 per month, and the lowest \$6 per month, proportioned to the degree of inability to earn a support. The act of May 9, 1900, provides that in determining such inability each and every infirmity shall be duly considered and the aggregate of the disabilities shown be rated.

Under this act each and every mental or physical infirmity of a permanent character, not due to applicant's own vicious habits, is duly considered, and the rate of pension to which the applicant is entitled is determined by the degree to which all these infirmities, whether minor or serious, *when considered together*, render applicant unable to earn a support by manual labor.

When the aggregate of the disabilities disables the claimant in a degree materially affecting his capacity for earning a support by manual labor, the rate of \$6 per month is provided, and when the claimant is wholly unable to earn a support, or nearly so, by reason of his infirmities, the rate of \$12 per month will be granted. For intermediate degrees of disability the rate of \$8 or \$10 per month is provided, according to the degree of disability.

A disability or disabilities that would entitle a claimant to the \$30 rate under the general law is rated under this act at \$12 per month.

On the other hand, many disabilities which are ratable under the general laws do not entitle a claimant to a pension under the act of June 27, 1890, because they do not incapacitate him for the performance of manual labor in such a degree as to render him unable to earn a support, as required by the act.

In cases where deafness is the only disability found to exist, a rate can not be accorded under the act of June 27, 1890,

cases of partial deafness as the Secretary of the Interior may deem equitable; the amount paid to be determined by the degree of disability existing in each case.

Total deafness of one ear is rated at \$10 per month.

The age of a claimant can not be regarded as a factor in fixing his rate of pension under the general law for disabilities of service origin.

This law applies to all claims based upon service since March 4, 1861, and therefore includes in its provisions those who incurred disabilities in the war with Spain and the insurrection in the Philippine Islands, and those who may hereafter become disabled in the military or naval service or in the Marine Corps.

Section 4716, Revised Statutes, provides that "no money on account of pension shall be paid to any person, or to the widow, children, or heirs of any deceased person, who in any manner voluntarily engaged in or aided or abetted the late rebellion against the authority of the United States."

By the act of March 3, 1877, as amended by the act of August 1, 1892, the provisions of section 4716 "shall not be construed to apply to such persons as afterwards voluntarily enlisted in either the Navy or Army of the United States, and who, while in such service, incurred disability from a wound or injury received or disease contracted in the line of duty."

If a soldier or sailor contracted a disability in the service and in line of duty, he may be pensioned under the general law, notwithstanding the fact that he rendered a prior voluntary service in the Confederate army.

PENSION TO WIDOWS.

Under the general laws.

(Number pensioned, 90,860.)

If any person embraced within the provisions of the above-named paragraphs has died since the 4th day of March,

if the deafness exists in a degree less than severe of both ears. Deafness of one ear is not ratable under this act, because incapacity to perform manual labor to a degree which produces inability to earn a support does not result from that cause.

The age of claimant is an important factor in fixing the rate of pension under the act of June 27, 1890.

A claimant who has reached the age of 75 years is allowed the maximum rate for senility alone, even where there are no special pensionable disabilities. A claimant who has attained the age of 65 years is allowed at least the minimum rate, unless he appears to have unusual vigor and ability for the performance of manual labor in one of that age. The effect of partial senility is considered with other infirmities, where there are such, and the aggregate incapacity rated.

The benefits of the act of June 27, 1890, are limited to those whose claims are based upon service of ninety days or more in the Army or Navy of the United States, or in the Marine Corps, *during the war of the rebellion.*

The provisions of section 4716, Revised Statutes, are held to apply to claims under the act of June 27, 1890.

Therefore if a soldier voluntarily served in the Confederate army and afterwards served in the Army or Navy of the United States during the war of the rebellion, he can not receive a pension under the act of June 27, 1890.

PENSION TO WIDOWS.

Under the act of June 27, 1890, as amended by the act of May 9, 1900.

(Number pensioned, 145,111.)

The third section of the act of June 27, 1890, provides that if any officer or enlisted man who served ninety days or more

1861, or hereafter dies by reason of any wound or injury received or disease contracted in the service and line of duty, his widow shall be entitled to receive the same pension as the husband would have been entitled to had he been totally disabled, to commence from the death of the husband and to continue during her widowhood.

The rate of pension to a widow is governed by the rank held by her husband at the date he received the wound or injury or contracted the disease which caused his death. The lowest rate is \$8 per month and the highest rate \$30 per month, according to rank. The act of March 19, 1886, grants a pension of \$12 per month after that date in lieu of the \$8 rate to widows of privates and non-commissioned officers, provided they were married to the deceased soldier or sailor prior to the passage of the act; and also to those who may hereafter marry prior to or during the service of the soldier or sailor.

A widow who married such soldier or sailor subsequent to March 19, 1886, and subsequent to the discharge of the soldier or sailor receives only \$8 per month.

Widows are also entitled to additional pension at the rate of \$2 per month for each of the minor children of the soldier or sailor until such child or children attain the age of 16 years; provided that the additional pension granted to the widow on account of the child or children of the husband by a former wife shall be paid to her only for such period of her widowhood as she has been or shall be charged with the maintenance of such child or children.

Section 4705, *Revised Statutes*, provides that the widows of colored and Indian soldiers and sailors who have died or shall hereafter die by reason of wounds or injuries received, or casualty received, or disease contracted, in the military or naval service of the United States, and in the line of duty, are entitled to receive the pension provided by the general law,

in the Army or Navy of the United States during the late war of the rebellion and who was honorably discharged has died, or shall hereafter die, leaving a widow without other means of support than her daily

labor, such widow shall, upon due proof of her husband's death, without proving his death to be the result of his army service, be placed on the pension roll from the date of the application therefor under this act, pension to continue during her widowhood.

It is, however, provided that said widow shall have married said officer or enlisted man prior to June 27, 1890, the date of the passage of the act; otherwise there is no title to pension thereunder.

The act of May 9, 1900, amends the act of June 27, 1890, by accepting dependence of a widow for pensionable purposes if she is without means of support other than her daily labor and an actual net income not exceeding \$250 per year.

The rate of pension to widows under this act is \$8 per month, regardless of the rank held by the husband in the service.

The additional pension of \$2 per month for each of the minor children of the soldier under the age of 16 years is paid to the widow in the same manner and under the same conditions as provided by the general law.

Section 4705, *Revised Statutes*, has no application to claims for pension under the third section of the act of June 27, 1890, as the right does not depend upon the incurrence of wounds, injuries, or disease incurred in the service, therefore in claims of widows under the act of June 27, 1890, marriages must be proven to be legal marriages according to the law of

without other evidence of marriage than satisfactory proof that the parties were joined in marriage by some ceremony deemed by them obligatory, or who habitually recognized each other as man and wife, and were so recognized by their neighbors, and lived together as such up to the date of enlistment, when such soldier or sailor died in the service, or, if otherwise, to date of death.

It will be seen that under the general law the financial condition of a widow is not a factor in establishing her title to pension, but it must be shown that her husband's death was due to the service.

Under the provisions of section 4708 Revised Statutes the remarriage of a widow terminates her title to pension after the date of such remarriage. The act of March 3, 1901, amends said section by providing that any widow who was the lawful wife of any officer or enlisted man in the Army, Navy, or Marine Corps of the United States, during the period of his service in any war, and whose name was placed or shall hereafter be placed on the pension roll because of her husband's death as the result of wound or injury received or disease contracted in such military or naval service, and whose name has been or shall hereafter be dropped from said pension roll by reason of her marriage to another person who has since died or shall hereafter die, or from whom she has been heretofore or shall be hereafter divorced, upon her own application and without fault on her part, and if she is without means of support other than her daily labor as defined by the acts of June 27, 1890, and May 9, 1900, shall be entitled to have her name again placed on the pension roll at the rates now provided for widows under the general laws, such pension to commence from the date of the filing of her application after March 3, 1901. Where said pension on the widow's remarriage has accrued to a helpless or idiotic child, or a child or children under sixteen years of age, the widow is not entitled to restoration under the act of March 3, 1901, unless said child or children be then a member or members of her family and cared for by her, and upon the restoration of the widow the payment of pension to said child or children shall cease.

PENSION TO MINOR CHILDREN.

Under the general law.

If an officer or enlisted man has died under such circumstances as would have entitled his widow to pension, the legiti-

the place where the parties resided at the time of marriage, or at the time when the right to pension accrued.

Under the act of June 27, 1890, as amended by the act of May 9, 1900, it must be shown that the widow is without means of support other than her daily labor, and an actual net income not exceeding \$250 per year, but she is not required to show that her husband's death was due to the service.

The provisions of the act of March 3, 1901, do not apply to pensions which have been or may hereafter be granted to widows under the act of June 27, 1890, as amended by the act of May 9, 1900.

PENSION TO MINOR CHILDREN.

Under the act of June 27, 1890.

The third section of the act of June 27, 1890, provides pension for minor children of officers and enlisted men who served

mate minors of such officer or enlisted man under the age of 16 years become entitled, provided the rights of the widow do not intervene. That is, if the officer or enlisted man left no widow, his minors become entitled to pension; or if he left a widow, when her title terminates the minors who are then under 16 years of age succeed to her rights.

Pension to minor children commences from the date of the death of the soldier or sailor if he left no widow, otherwise, from the date when the right of the widow terminated.

Pension to minors ceases when they severally attain the age of 16 years, and the rate of pension is the same as the rate for widows.

In case a minor child becomes insane, idiotic, or otherwise permanently helpless before it attains the age of 16 years, the pension shall continue during the life of said child, or during the period of such disability. But a child who becomes insane or permanently helpless after he or she has completed his or her sixteenth year is not entitled to such continuance of pension, and there is no provision of law by which a helpless or idiotic child, who was over 16 years of age at the death of the soldier or sailor, can be pensioned.

To entitle minor children "of colored and Indian soldiers and sailors" to pension it must be proved that their parents were joined in marriage by some ceremony deemed by them obligatory or habitually recognized each other as man and wife, and were so recognized by their neighbors, and lived together as such up to the date of enlistment, when such soldier or sailor died in the service, or if otherwise to date of death.

The children of a colored soldier or sailor by a woman who was not living with him as his wife at the date of his enlistment or death are not pensionable under section 4705, Revised Statutes.

PENSION TO DEPENDENT PARENTS.

Under section 4707, R. S.

If a soldier or sailor died of a disability contracted in service and line of duty, and leaves neither widow nor legitimate minor child, certain relatives of such soldier or sailor, if any survive, who were dependent in whole or in part on said soldier or sailor at the time of his death become entitled.

Under the statute granting pensions to dependent relatives the mother is first

ninety days or more in the Army or Navy of the United States *during the late war of the rebellion*, and were honorably discharged, and who have died or shall hereafter die; if the rights of the widow to not intervene.

It is provided that in case of the death or remarriage of the widow, leaving a child or children of such officer or enlisted man under the age of 16 years, such pension shall be paid such child or children until the age of 16.

Pension to minor children under this act commences at date of filing the application therefor, after the death of the soldier or sailor and the death or remarriage of the widow.

The rate is \$8 per month, and \$2 per month additional for each minor child until such child reaches the age of 16.

Pension to minor children who become insane, idiotic, or permanently helpless is governed by the same rule as that stated under the head of "general law pensions."

If the soldier or sailor was married or marries after June 27, 1890, and dies, his children of such marriage are not entitled to pension under the provision of this act.

Proof of dependence in a pecuniary point of view is not necessary to establish a minor's pensionable status.

As stated under the head of "Pension to widows," section 4705, Revised Statutes, has no application to claims for pension under the third section of the act of June 27, 1890.

This rule applies to claims of minor children, as well as to claims of widows.

PENSION TO DEPENDENT PARENTS.

Under section 4707 as amended by the act of June 27, 1890.

The first section of the act of June 27, 1890, which amends section 4707, Revised Statutes, provides that "in considering the pension claims of dependent parents the fact of the soldier's death by reason of any wound, injury, casualty, or disease which, under the conditions and limitations of existing laws, would have entitled him to an invalid pension, and the fact that the soldier left no widow or

entitled; secondly, the father; thirdly, orphan brothers and sisters under 16 years of age.

It is provided that a mother shall be assumed to have been dependent upon her son within the meaning of the law if, at the date of his death, she had no other adequate means of support than the ordinary proceeds of her own manual labor and the contributions of said son or of any other persons not legally bound to aid in her support; and if, by actual contributions, or in any other way, the son had recognized his obligations to aid in support of his mother, or was by law bound to such support; and that a father or a minor brother or sister shall, in like manner and under like conditions, be assumed to have been dependent, except that the income which was derived or derivable from his actual or possible manual labor shall be taken into account in estimating a father's means of independent support.

Rates of pension to dependent relatives are fixed according to rank, the same as in pensions to widows, but the minimum rate is \$12 per month after March 19, 1886.

minor children having been shown, as required by law, it shall be necessary only to show by competent and sufficient evidence that such parent or parents are without other present means of support than their own manual labor or the contributions of others not legally bound for their support."

Pensions under this act commence from date of filing the application, and shall continue no longer than the existence of the dependence.

It will be seen that the amended act permits the pensioning of those who can establish dependence at date of filing the application, instead of the date of the soldier's or sailor's death, but the conditions attaching to dependence itself are not changed by the act of June 27, 1890.

The benefits of the above-stated section are not confined to the parents of those who served in the war of the rebellion, but are extended to all parents where pensionable dependence has arisen on account of the death of a son who served since said war in the Army or Navy of the United States.

Rates of pension are governed by the same rule as those of widows under the general law.

TWO SYSTEMS OF PENSIONING COMPARED.

The bases of ratings under the two laws are so widely different that it is impossible to fix a parallel except in a general way.

General law.

The bases for ratings under the general law are:

First. For minor disabilities, an ankylosed wrist or ankle, \$8.

Second. For incapacity to perform manual labor, equivalent to the loss of a hand or a foot, \$24.

Third. For incapacity to perform any manual labor, \$30.

Act of June 27, 1890, as amended by the act of May 9, 1900.

The basis of ratings under this act is the degree to which all the infirmities, whether minor or serious, when considered together, render applicant unable to earn a support by manual labor. Only those disabilities which are permanent, and not due to the claimant's own vicious habits, can be considered.

Minimum rate under this act, \$6.

Maximum rate under this act, \$12.

Intermediate rates, \$8 and \$10 per month.

There are no schedule rates under this act for incapacity resulting from any separate or combined disabilities, and even if the claimant is disabled to such an extent that he requires the regular aid and attendance of another person, a rate in excess of \$12 per month can not be allowed, that being the maximum rate provided in the act.

NAVY-PENSION FUND.

The money accruing to the United States from sale of prizes constitutes a fund which must remain forever a fund for the payment of pensions to the officers, seamen, and marines who may be entitled to receive the same. The law provides that if such fund be insufficient for the purpose the public faith is pledged to make up the deficiency.

It does not appear that there was any navy-pension fund in 1861, but in 1862 it amounted to \$1,356,000, and in 1864 to \$6,055,585. It now amounts to about \$14,000,000. The interest on the fund up to 1868 was more than sufficient to pay navy pensions, and in that year a law was passed reducing the interest on said fund to 3 per cent per annum.

Since 1870 the amount derived from the interest on this fund has been inadequate to pay all navy pensions, and the provision which pledges the public faith to make up the deficiency has been brought into operation since that date.

During the past six years the interest on the navy-pension fund available for the payment of navy pensions has been as follows:

For 1895	\$339, 535
For 1896	340, 685
For 1897	340, 275
For 1898	341, 275
For 1899	342, 275
For 1900	343, 575
For 1901	357, 966

The amounts paid during said years for navy pensions were as follows:

In 1895	\$3, 655, 485. 95
In 1896	3, 588, 528. 58
In 1897	3, 635, 802. 71
In 1898	3, 723, 932. 90
In 1899	3, 683, 794. 37
In 1900	3, 761, 533. 41
In 1901	3, 787, 693. 03

It will readily appear that the amount of interest on the navy pension fund made available for the payment of navy pensions during the period above noted was in fact less than 10 per cent of the actual payments made in connection with that branch of the service.

In the naval appropriation act of 1870 it was provided that the present and all future appropriations for the support of the United States Naval Asylum at Philadelphia, Pa., should be charged to and paid from the income of the naval pension fund.

This fund is also charged with the payment of the half-pay allowance made to disabled seamen or marines for twenty years' service, and the allowance made by the Secretary of the Navy to disabled persons who have served in the Navy or Marine Corps for a period of ten years. These allowances are separate from and in addition to any pension to which these persons are entitled under existing laws.

WHO ARE ENTITLED TO PENSIONS.

REVOLUTIONARY WAR.

The act of March 18, 1818, thirty-five years after the termination of the Revolutionary war, was the first general act passed granting a pension for service only. Its beneficiaries were required to be in indigent circumstances and in need of assistance.

About 1820 Congress became alarmed at the large number of applicants for pensions under this act (there were about 8,000), and, on May 1, 1820, passed what has been known as the "alarm act," which required all pensioners then on the roll to furnish a schedule of the amount of property then in their possession. Many of the pensioners whose schedules showed they possessed too much property were dropped from the rolls. Pensioners were dropped who owned as small an amount as \$150 worth of property.

On May 15, 1828, or forty-five years after the war, service pension was granted to those who served to the end of the war of the Revolution.

On June 7, 1832, or forty-nine years after the close of the war, a general law was enacted pensioning all survivors who served not less than six months in said war.

On July 4, 1836, being fifty-three years after the termination of the war, an act was passed granting pension for five years to Revolutionary war widows, provided they were married to the soldier or sailor before the close of his last service and that his service was not less than six months.

On July 7, 1838, or fifty-five years after the close of the war, the above act was amended so as to provide where the marriage took place before January 1, 1794.

On July 29, 1848, or sixty-five years after the war, the above laws were amended to include those who were married prior to January 1, 1800.

On February 3, 1853, or seventy years after the war, an act was passed striking out the limitation as to date of marriage.

WAR OF 1812.

The first law granting pension for service in the war of 1812 was passed February 14, 1871, fifty-six years after the close of the war. This act required sixty days' service, and widows were not entitled unless they were married to soldier or sailor prior to the treaty of peace, February 17, 1815.

The act of March 9, 1878, sixty-three years after the close of the war, reduced the period of service to fourteen days, and made no limitation as to date of marriage in case of widows.

WAR WITH MEXICO.

On January 29, 1887, thirty-nine years after the close of the war, an act was passed providing for soldiers and sailors and their widows for service of sixty days, if 62 years of age, or disabled or dependent.

INDIAN WARS.

On July 27, 1892, fifty years after period included in the act, pension was provided for those who served thirty days in the Black Hawk, Creek, Cherokee, and Florida war with Seminole Indians from 1832 to 1842 and to their widows.

There has never been any law pensioning widows of soldiers whose death was due to service in time of peace prior to March 4, 1861.

No provision has ever been made for mothers and fathers and brothers and sisters if the death of soldier or sailor resulted from service prior to March 4, 1861.

The laws relating to pension have been more liberal since 1861 than they were prior to that date.

To make it plainer, as an illustration of this fact, I will cite the case of a sailor who lost both arms in the service and line of duty prior to March 4, 1861. He would be entitled to a rating beginning at \$3.50 per month and to the various rates provided from time to time to February 12, 1889, when he would receive \$100 per month.

ACTS OF JULY 14, 1862, AND MARCH 3, 1873.

Any officer, soldier, sailor, or marine, disabled by reason of wound received or disease contracted in the service of the United States, and in the line of duty, may be pensioned for such disability during its continuance.

In case of his death from causes originating as above set forth, his widow or his child or children under 16 years of age become entitled to pension. If he left no widow, or child under 16, his dependent mother, father, or orphan sisters and brothers are entitled in the order named.

ACT OF JUNE 27, 1890, AS AMENDED BY THE ACT OF MAY 9, 1900.

Any officer, soldier, sailor, or marine who served ninety days or more in the military or naval service of the United States during the late war of the rebellion, who has been honorably discharged therefrom, and who is suffering from disability of a permanent character, not the result of his own vicious habits, which incapacitates him from the performance of manual labor in such a degree as to render him unable to earn a support, is entitled to pension under this act of not less than \$6 per month nor more than \$12 per month.

In case of the death of any person named above, his widow becomes entitled to pension, provided she married him prior to June 27, 1890, and that she is without other means of support than her daily labor. If she remarries or dies, the child or children of such soldier or sailor under the age of 16 years become entitled.

The act of May 9, 1900, which is an amendment of the act of June 27, 1890, provides that in determining inability to earn a support each and every infirmity shall be duly considered, and the aggregate of the disabilities shown be rated.

It is also provided that a widow may have title to pension if she is left without means of support other than her daily labor and an actual net income not exceeding \$250 per year.

ACT OF AUGUST 5, 1892.

All women employed by the Surgeon-General of the Army as nurses during the late war of the rebellion for a period of six months or more and who were honorably relieved from such service, are granted a pension, provided they are unable to earn a support.

SERVICE PENSIONS.

There is no law granting service pension to any person for service rendered since the war with Mexico.

RULES ADOPTED BY THE COMMITTEE ON PENSIONS, UNITED STATES
SENATE JANUARY 11, 1898.

1. Consideration will not be given to any bill which has not first been submitted to the Pension Bureau for adjudication, unless conclusive proof is presented that the claimant has no pensionable status before the Bureau. Claims passed upon by the Bureau, whether allowed or rejected, will not be entertained by this committee until a period of at least one year has elapsed.

2. Where original pension or increase of pension has been allowed by special act, no proposition for additional pension will be entertained by this committee.

3. Bills providing for the payment of arrears will not be considered in any case.

4. Bills proposing to pension children of soldiers will not be entertained except in cases where the child has been idiotic, deformed, or otherwise mentally or physically incapacitated from birth or early childhood, and then only in cases of destitution.

5. Bills for increasing pensions by special act, which have been granted by the Bureau at the maximum rate under the act of June 27, 1890, will not be given consideration, except in cases of actual destitution or extreme physical disability: *Provided, however,* That where pension has been allowed under the act of June 27, 1890, and a rejected claim exists under the general law, the equities in the latter claim will be considered with a view to increase.

6. Bills proposing to pension men who were not mustered into service, except in cases where they performed actual military duty and were wounded, or unless some special or extraordinary service was rendered in connection with the Army, are not admissible.

7. No widow's pension will be granted by special act in excess of the maximum rate allowed by law, except in cases of destitution, to be substantiated by sworn testimony, including the claimant's affidavit, and in no case will a higher rate than \$50 per month be allowed.

8. This committee will not give consideration to any bill which proposes to restore to the roll the name of a widow of a soldier whose pension was forfeited by remarriage, unless she was the wife of a soldier during the war and is now a widow in actual need.

9. Bills proposing to pension the brothers and sisters of soldiers will not be given favorable consideration.

10. As a rule, bills for original pension will be given consideration in preference to those for increase.

11. Bills will be promptly referred to a subcommittee upon request of any Senator, but all bills referred to subcommittees must be reported back to the full committee for action before being reported to the Senate.

12. An authorized statement, by a member of the committee or by the Senator introducing a bill, as to the circumstances of the claimant will be required when satisfactory evidence does not appear among the papers accompanying the bill.

RULES ADOPTED BY THE COMMITTEE ON PENSIONS, HOUSE OF
REPRESENTATIVES.

I. Consideration will not be given to any bill which has not first been presented to and settled by the Pension Bureau, unless it shall appear that claimant has no pensionable status under any general law.

II. Bills proposing to increase pensions by special act in cases where the existing pension was so granted will not be considered.

III. Bills providing for the payment of arrears will not be considered.

IV. Bills for those not enlisted will not be considered except for disability incurred in action.

V. Bills for original pension exceeding in rate the general law provisions for same disabilities or rank will not be favorably considered.

VI. Bills granting pension by private act to children or other descendants of soldiers or sailors will not be considered.

VII. Where dependency is required to be shown, it must be by the affidavits of disinterested persons, except that when members introducing such bills have personal knowledge of the facts, their written statements may be accepted.

TABLE OF RATES.

RATINGS NOW IN FORCE FOR DISABILITIES INCURRED IN THE MILITARY OR NAVAL SERVICE AND IN LINE OF DUTY.

TABLE I.

For simple total (a disability equivalent to the ankylosis of a wrist) provided by section 4695, Revised Statutes, United States.

ARMY.

	Per month
Lieutenant-colonel and all officers of higher rank.....	\$30. 00
Major, surgeon, and paymaster.....	25. 00
Captain, provost-marshal, and chaplain.....	20. 00
First lieutenant, assistant surgeon, deputy provost-marshal, and quartermaster.....	17. 00
Second lieutenant and enrolling officer.....	15. 00
All enlisted men.....	8. 00

NAVY AND MARINE CORPS.

Captain, and all officers of higher rank, commander, lieutenant commanding, and master commanding, surgeon, paymaster, and chief engineer ranking with commander by law, lieutenant-colonel, and all of higher rank in Marine Corps.....	30. 00
Lieutenant, passed assistant surgeon, surgeon, paymaster, and chief engineer, ranking with lieutenant by law, and major in Marine Corps.....	25. 00
Master, professor of mathematics, assistant surgeon, paymaster, and chaplain, and captain in Marine Corps.....	20. 00
First lieutenant in Marine Corps.....	17. 00
First assistant engineer, ensign, and pilot, and second lieutenant in Marine Corps.....	15. 00
Cadet midshipmen, passed midshipmen, midshipmen, clerks of admirals, of paymasters, and of officers commanding vessels, second and third assistant engineers, master's mate, and warrant officers.....	10. 00
All enlisted men, except warrant officers.....	8. 00

TABLE II.

Rates and disabilities specified by law.	From July 4, 1864.	From Mar. 3, 1865.	From June 6, 1866.	From June 4, 1872.	From June 4, 1874.	From Feb. 28, 1877.	From June 17, 1878.	From Mar. 8, 1879.	From Mar. 3, 1883.	From Mar. 3, 1885.	From Aug. 4, 1886.	From Aug. 27, 1888.	From Feb. 12, 1889.	From Mar. 4, 1890.	Act of July 14, 1892.
	Loss of both hands	\$25			\$31½	\$50	\$72							\$100	
Loss of sight of both eyes	25			31½	50	72									
Loss of both feet	20			31½	50	72									
Loss of sight of one eye, the sight of the other lost before enlistment.			\$25	31½	50	72									
Total disability in both hands		25		31½	50	72									
Regular aid and attendance (first grade)		26		31½	50	72								\$72	
Periodical aid and attendance															\$50
Loss of a leg at hip joint			15	24				\$37½			\$45				
Loss of an arm at shoulder joint			15	18	24				\$30	\$37½	45				
Loss of an arm at or above elbow, or a leg at or above knee				15	18	24				30	36				
Loss of a leg above the knee causing inability to wear an artificial limb			15	24					30		36				
Loss of one hand and one foot	\$20			24		\$36									
Total disability in one arm or one leg		15		18					24		36				
Total disability in one hand and one foot		20		24		36									
Total disability in both feet		20		31½											
Loss of a hand or a foot				15	18				24		30				
Total disability in one hand or one foot				15	18				24		30				
Incapacity to perform manual labor		20		24					30						
Total deafness				13								\$30			
Disability equivalent to the loss of a hand or a foot				15	18				24						

¹ Seventy-two dollars from June 17, 1878, only where the rate was \$60 under the act of June 18, 1874, and granted prior to June 16, 1880. First grade proper is \$50, amended by act of March 4, 1890, which increases rate to \$72.

² From date of medical examination held after July 14, 1892.

TABLE III.

Rates fixed by the Commissioner of Pensions for certain disabilities not specified by law.

Anchylosis of shoulder	\$12.00
Anchylosis of elbow	10.00
Anchylosis of knee	10.00
Anchylosis of ankle	8.00
Anchylosis of wrist	8.00
Loss of sight of one eye	12.00
Loss of one eye	17.00
Nearly total deafness of one ear	6.00
Total deafness of one ear	10.00
Slight deafness of both ears	6.00
Severe deafness of one ear and slight of the other	10.00
Nearly total deafness of one ear and slight of the other	15.00
Total deafness of one ear and slight of the other	20.00
Severe deafness of both ears	22.00
Total deafness of one ear and severe of the other	25.00
Deafness of both ears existing in a degree nearly total	27.00
Loss of palm of hand and all the fingers, the thumb remaining	17.00
Loss of thumb, index, middle, and ring fingers	17.00
Loss of thumb, index, and middle fingers	16.00
Loss of thumb and index finger	12.00
Loss of thumb and little finger	10.00
Loss of thumb, index, and little fingers	16.00
Loss of thumb	8.00
Loss of thumb and metacarpal bone	12.00
Loss of all the fingers, thumb and palm remaining	16.00
Loss of index, middle, and ring fingers	16.00
Loss of middle, ring, and little fingers	14.00
Loss of index and middle fingers	8.00
Loss of little and middle fingers	8.00

Loss of little and ring fingers.....	\$6.00
Loss of ring and middle fingers.....	6.00
Loss of index and little fingers.....	6.00
Loss of index finger.....	4.00
Loss of any other finger without complications.....	2.00
Loss of all the toes of one foot.....	10.00
Loss of great, second, and third toes.....	8.00
Loss of great toe and metatarsal.....	8.00
Loss of great and second toes.....	8.00
Loss of great toe.....	6.00
Loss of any other toe and metatarsal.....	6.00
Loss of any other toe.....	2.00
Chopart's amputation of foot, with good results.....	14.00
Pirogoff's modification of Syme's.....	17.00
Small varicocele.....	2.00
Well-marked varicocele.....	4.00
Inguinal hernia, which passes through the external ring.....	10.00
Inguinal hernia, which does not pass through the external ring.....	6.00
Double inguinal hernia, each of which passes through the external ring.....	14.00
Double inguinal hernia, one of which passes through the external ring and the other does not.....	12.00
Double inguinal hernia, neither of which passes through the external ring..	8.00
Femoral hernia.....	10.00

NOTE.—Section 4699, Revised Statutes, provides that the rate of eighteen dollars per month may be proportionately divided for any degree of disability established for which section forty-six hundred and ninety-five makes no provision, thus fixing the highest rating provided by existing laws which can be allowed by considering disabilities separately and compounding so as to allow the full amount which the disabilities, so considered, would aggregate.

The act of March 2, 1895, provides that all pensioners now on the rolls, who are pensioned at less than six dollars per month, for any degree of pensionable disability, shall have their pensions increased to six dollars per month; and that, hereafter, whenever an applicant for pension would, under existing rates, be entitled to less than six dollars for any single disability or several combined disabilities, such pensioner shall be rated at not less than six dollars per month: *Provided also*, That the provisions hereof shall not be held to cover any pensionable period prior to the passage of this act, nor authorize a rerating of any claim for any part of such period, nor prevent the allowance of lower rates than six dollars per month, according to the existing practice in the Pension Office in pending cases covering any pensionable period prior to the passage of this act.

WIDOWS.

The widow of a soldier or sailor who died of a disability incurred while in the service and in line of duty is, under the provisions of section 4702, Revised Statutes, entitled to the rating to which he would have been entitled for a simple total disability, as shown in Table I; and, under the provisions of section 4696, Revised Statutes, the rank of the soldier is determined by the rank held by him when death cause was incurred, without regard to subsequent promotions.

From and after March 19, 1886, by the act approved on that date, the widow of a private or noncommissioned officer is entitled to \$12 per month, provided that she married deceased soldier or sailor prior to March 19, 1886, or thereafter married him prior to or during his term of service.

WIDOW'S INCREASE.

From and after July 25, 1886, a widow is entitled to \$2 per month increase for each legitimate minor child of the soldier or sailor in her care and custody.

MINOR'S PENSION.

Same rates and increase as in widows' claims, except that in cases of children of fathers below the rank of a commissioned officer the rate is increased to \$12 per month from March 19, 1886, without regard to date of soldier's or sailor's marriage.

MOTHERS, FATHERS, AND BROTHERS AND SISTERS.

Same rates as provided in minors' and widows' claims in cases of commissioned officers, and \$8 per month to March 19, 1886, and \$12 thereafter in other cases.

PENSIONS BASED UPON SERVICE PERFORMED SINCE MARCH 4, 1861. ACT OF JUNE 27, 1890, AS AMENDED BY THE ACT OF MAY 9, 1900.

	Per month.
Survivors	\$6. 00 to \$12. 00
Widows and minors	8. 00

To widow's and minor's rate add \$2 per month increase for each legitimate minor child of soldier or sailor under the age of 16.

ACT OF AUGUST 5, 1892.

Female nurses	\$12. 00
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ACT OF MARCH 2, 1867 (NAVY ONLY).

For twenty years' naval service, entitled to one-half the pay he was receiving at date of discharge.

Ten years' service, whatever rate may be allowed by a board of officers appointed by the Secretary of the Navy, not to exceed rate for total disability.

If in addition to service pension sailor is pensioned for disability, the service pension covering the same time shall not exceed one-fourth the rate allowed for disability.

NOTE.—Claims under this act should be filed with the Secretary of the Navy.

PENSIONS BASED UPON SERVICE PERFORMED PRIOR TO MARCH 4, 1861.

Revolutionary war.

There are no survivors of this war.

Widows, from March 9, 1878, \$8, and from March 19, 1886	\$12. 00
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War of 1812.

(Sections 4736 and 4740, Revised Statutes, and acts of March 9, 1878, and March 19, 1886.)

Survivors	\$8. 00
Widows, from March 9, 1878, \$8, and from March 19, 1886	12. 00

Indian wars, from 1832 to 1842 (act of July 27, 1892).

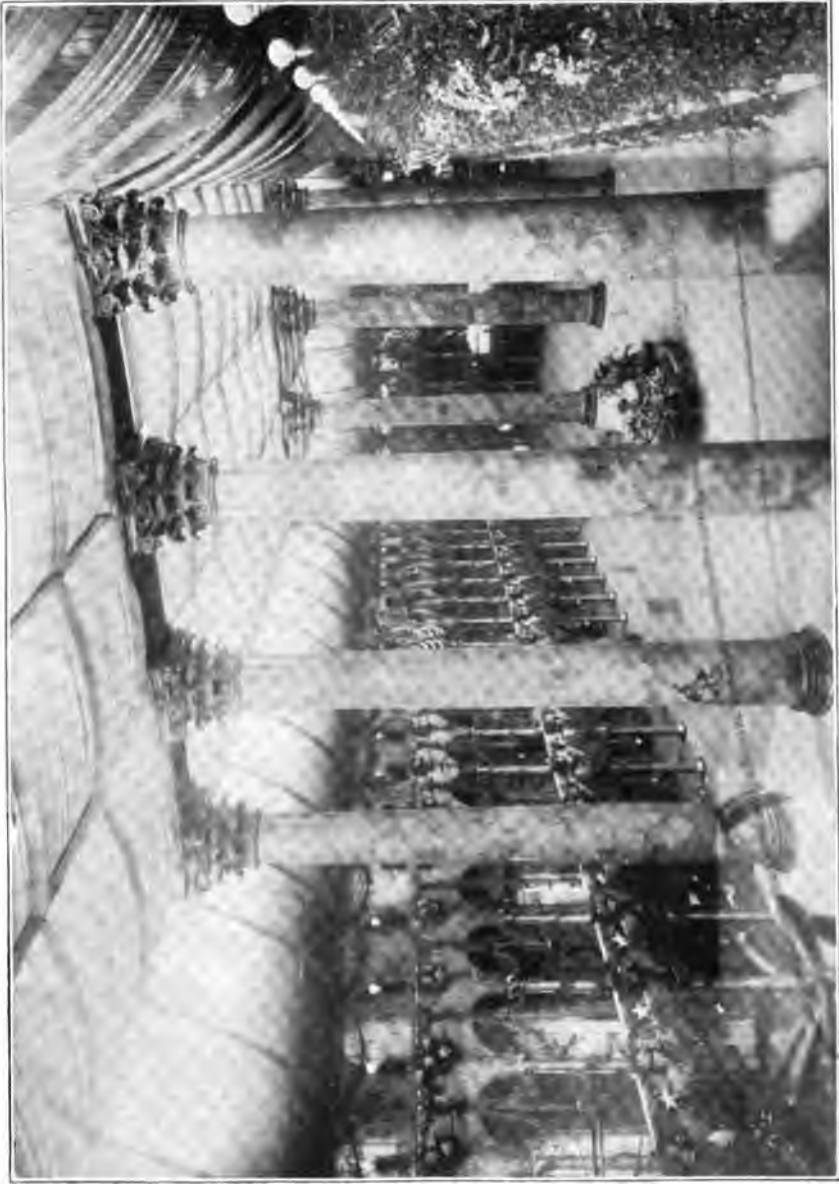
Survivors	\$8. 00
Widows	8. 00

Mexican war (act of January 29, 1887).

Survivors	\$8. 00
Act of January 5, 1893, provides, under certain conditions, for increase of survivor's pension only to	12. 00
Widows	8. 00

Amount of money paid pensioners under different Administrations specified herein by fiscal years.

President Grant's first term	\$114, 605, 092. 10
Average per year	28, 651, 273. 02
President Grant's second term	115, 596, 215. 00
Average per year	28, 899, 053. 75
President Hayes's Administration	167, 723, 072. 79
Average per year	41, 930, 768. 19
President Garfield's Administration	237, 825, 070. 45
Average per year	59, 456, 267. 61
President Cleveland's first term	305, 637, 362. 23
Average per year	76, 409, 340. 55
President Harrison's Administration	519, 707, 725. 94
Average per year	129, 926, 931. 48
President Cleveland's second term	557, 959, 407. 28
Average per year	139, 489, 851. 82
President McKinley's first term	560, 000, 547. 24
Average per year	140, 000, 136. 81



COURT AND GALLERIES OF PENSION BUILDING, INAUGURATION, MARCH 4, 1901.

REPORT

OF THE

COMMISSIONER OF RAILROADS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF COMMISSIONER OF RAILROADS,
Washington, D. C., November 1, 1901.

SIR: In compliance with the provisions of the act of Congress creating this Bureau, approved June 19, 1878 (20 Stat., 169, sec. 3), I have the honor to submit the following report for the year ended June 30, 1901, on the physical and financial condition of the property and affairs of the several railroad companies which have received subsidies from the United States, and which have submitted such reports as have been called for under the law.

The marvelous and steady increase of railroad traffic over the land-grant and bond-aided roads, as shown in the reports of this Bureau, is a striking evidence of the prosperity of the people, and especially of the growth of the West.

The physical conditions of the roads in question have improved in fully equal ratio with their great financial increase. Substantial improvements have been made in the main lines; heavy steel rails have taken the place of lighter quality; iron and steel bridges have replaced wooden ones, and the ballasting has been materially improved.

Attention is invited to the following statement, showing increase of net earnings of the different railroad companies for the last four years:

Road.	1898.	1899.	1900.	1901.
Union Pacific.....	\$1,395,017.08	\$2,076,775.16	\$1,325,211.27	\$525,532.18
Central Pacific.....	1,566,134.97	¹ 162,358.05	1,023,726.90	215,395.70
Central Branch.....	57,123.44	¹ 105,358.05	184,521.49	¹ 51,407.80
Sioux City and Pacific.....	72,748.85	22,720.94	¹ 21,459.96	47,273.39
Atchison, Topeka and Santa Fe.....	2,263,847.77	1,872,637.49	3,282,360.29	2,319,134.49
Chicago and North-Western.....	969,262.14	1,310,991.07	2,267,398.03	137,010.61
Chicago, Burlington and Quincy.....	1,785,073.19	513,142.79	940,138.18	2,905,669.66
Chicago, Milwaukee and St. Paul.....	1,078,868.16	1,359,698.60	¹ 883,940.68	927,654.34
Chicago, Rock Island and Pacific.....	1,418,792.18	39,186.59	676,349.80	581,448.35
Chicago, St. Paul, Minneapolis and Omaha.....	33,930.60	811,428.96	¹ 178,931.35	207,818.57
Choctaw, Oklahoma and Gulf.....	58,891.84	10,630.34	785,187.28	885,075.54
Dubuque and Sioux City.....	216,556.20	158,579.90	¹ 254,440.64	¹ 36,336.20
Missouri, Kansas and Texas.....	641,214.53	49,665.37	¹ 35,292.50	425,688.02
Missouri Pacific.....	587,854.94	¹ 281,998.09	578,793.85	846,167.49
Northern Pacific.....	6,382,751.71	1,047,540.78	1,827,011.14	224,388.69
Oregon and California.....	477,907.99	¹ 19,618.42	¹ 97,703.72	104,655.44
St. Joseph and Grand Island.....	.....	¹ 60,224.36	¹ 23,123.06	180,526.31
St. Louis and San Francisco.....	320,044.17	12,893.19	386,165.81	939,832.21
St. Louis, Iron Mountain and Southern.....	914,387.46	¹ 248,813.03	1,297,379.62	¹ 1,193,912.46
Santa Fe Pacific.....	.....	291,884.30	1,822,449.70	¹ 14,908.92
Southern Pacific of California.....	2,582,204.26	¹ 1,094,219.12	1,415,603.74	588,850.91
Texas and Pacific.....	425,440.75	232,278.87	¹ 60,747.71	¹ 597,745.47
Wisconsin Central.....	139,492.06	174,277.68	¹ 4,048.89	¹ 198,669.26

¹ Decrease.

It will be observed that the increase in net earnings for the fiscal year amounts to over \$13,000,000. Attention is also invited to the following statement, showing the increase of earnings and expenses for 1901 over 1900:

Road.	Increase of—	
	Earnings.	Expenses.
Union Pacific	\$2,425,692.87	\$1,900,160.74
Central Pacific	794,483.86	579,088.16
Central Branch	14,588.46	46,818.84
Sioux City and Pacific	38,431.02	18,842.37
Atchison, Topeka and Santa Fe	4,374,743.43	2,055,608.94
Chicago and North-Western	421,873.39	284,862.78
Chicago, Burlington and Quincy	11,692,998.21	8,787,328.55
Chicago, Milwaukee and St. Paul	484,320.65	1,443,333.69
Chicago, Rock Island and Pacific	2,714,090.21	2,182,641.86
Chicago, St. Paul, Minneapolis and Omaha	264,700.56	56,881.99
Choctaw, Oklahoma and Gulf	1,839,991.42	964,915.88
Dubuque and Sioux City	117,783.72	18,552.48
Missouri, Kansas and Texas	2,776,571.22	2,849,883.20
Missouri Pacific	886,106.92	39,988.43
Northern Pacific	2,539,665.86	2,315,277.17
Oregon and California	316,497.22	211,841.78
St. Joseph and Grand Island	14,740.03	1185,266.34
St. Louis and San Francisco	2,190,451.19	1,250,618.98
St. Louis, Iron Mountain and Southern	1,394,388.12	200,475.66
Santa Fe Pacific	699,962.41	714,871.33
Southern Pacific of California	1,376,526.99	787,676.08
Texas and Pacific	2,640,489.41	1,042,743.49
Wisconsin Central	1813,141.60	1114,472.34

¹ Decrease.

The increase in gross earnings is over \$37,000,000 and the increase in expenses is over \$24,000,000. The large increase in expenses is evidently due to the additions and betterments in rolling stock, road-bed, etc., mentioned in above paragraph.

BOND-AIDED ROADS.

UNION PACIFIC RAILROAD COMPANY.

The Government terminated its pecuniary interests in this company on November 1, 1897, when the main line of its road was sold to the purchasing trustees of the reorganization committee under a decree of the United States court for the district of Nebraska.

The Union Pacific Railroad Company was incorporated June 23, 1897, and has become the successor to the lines of the Union Pacific Railway Company. The entire main line was opened to public business April 15, 1898.

By the acts of 1862 and 1864 lands were granted by the United States to the companies forming the present corporation as follows:

	Acres.
Union Pacific	12,000,000
Kansas Pacific	6,000,000
Denver Pacific Railway and Telegraph	1,400,000
Total	19,400,000

The following points are the land-grant termini: Union Pacific, Bridge Junction, Omaha, Nebr., and Union Depot, Ogden, Utah;

Kansas Pacific, Kansas City, Mo., and a point on the railroad between Monument and Gopher stations and Eighteenth street, Denver, Colo.; Denver Pacific, Denver, Colo., and Cheyenne, Wyo.

The records of the General Land Office show that during the fiscal year ended June 30, 1901, there were patented to this company 986,073.13 acres. On that date the number of acres patented, as shown by the books of the General Land Office, is as follows:

	Acres.	Acres.
Union Pacific:		
In Colorado.....	550,080.45	
In Nebraska.....	4,842,906.57	
In Wyoming.....	1,874,251.20	
In Utah.....	364,416.80	
	<hr/>	7,631,655.06
Kansas Pacific:		
In Kansas.....	3,526,912.48	
In Colorado.....	216,100.89	
	<hr/>	3,743,013.37
Denver Pacific, in Colorado.....		457,392.33
Total.....		<hr/> 11,832,060.76

The report of the company shows that to June 30, 1901, they had acquired in the reorganization, by purchase, unsold lands, including lands not yet patented, amounting to 4,094,248.93 acres, and by cancellation of contracts 1,478,308.91 acres. The total cash receipts from all sales to date amounted to \$976,505.35, and there were outstanding on account of time sales \$1,890,247.21. The average price per acre now asked for land is 70 cents.

At the close of the fiscal year the total number of miles operated was 2,958.14. The track is laid with steel rails of various weights, from 52 to 90 pounds per yard. There are, however, 72.26 miles laid with iron rails from 56 to 58 pounds per yard. The cross ties are of oak, fir, pine, and cedar, and average 2,868 to the mile. The track is fenced for 1,825 miles. The ballast consists of 21.90 miles of stone, 737.77 miles of gravel, 111.40 miles of cinder, 132.67 miles of burnt clay, 19.50 miles of crushed slag, and 1,941.94 miles of natural soil. The bridges aggregate 154,370 feet in length.

The assessed valuation for taxation of roadway, bridges, track, buildings, rolling stock, etc., for taxation averages \$8,224 per mile, or a total of \$24,327,272.

The express business is transacted by the Pacific Express Company, the railway company receiving 50 per cent of the gross earnings. The 5 miles of track from Ogden, Utah, to the western terminus of the road are leased to the Central Pacific Railroad Company under a contract dated February 10, 1888, for a consideration of \$20,000 per annum.

On May 1, 1901, this company issued \$93,957,000 of 4 per cent convertible bonds to acquire the stock of the Southern Pacific Company

and other securities. This acquisition gives to the Union Pacific control of all the lines formerly governed by the Southern Pacific Company, and in consequence a through line to the Pacific coast via the Central Pacific Railroad.

The following statements show the operations of the company for the fiscal year and their general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$4,410,333.65	\$4,034,945.66	\$375,387.99	
Freight.....	18,462,554.84	16,504,304.87	1,958,249.47	
Mail.....	1,353,765.50	1,357,509.71		\$3,744.21
Express.....	389,290.97	322,932.56	66,358.41	
Miscellaneous.....	856,655.74	827,214.53	29,441.21	
Total.....	25,472,600.20	23,046,907.33	2,425,692.87	
EXPENSES.				
Maintenance of way and structures ..	3,192,008.37	2,156,859.50	1,035,148.87	
Maintenance of equipment.....	3,203,329.13	2,913,806.43	289,522.70	
Conducting transportation.....	7,362,491.02	6,911,886.30	450,604.72	
General expenses and taxes.....	1,464,559.99	1,339,670.54	124,889.45	
Total.....	15,222,388.56	13,322,222.82	1,900,160.74	
Net earnings.....	10,250,216.64	9,724,684.51	525,532.13	
Miles operated.....	2,968.14	2,892.96	65.19	
Earnings per mile.....	\$3,611.02	\$7,966.58	\$644.44	
Expenses per mile.....	5,145.93	4,605.06	540.87	
Net earnings per mile.....	3,465.09	3,361.52	103.57	
Percentage of expenses to earnings...	59.75	59.06	.69	

Revenue and expenditures for year.

REVENUE.	
Earnings.....	\$25,472,600.20
Profits on stocks of other companies.....	629.50
Profits on bonds of other companies.....	1,549.37
Dividends on stocks of other companies.....	719,433.75
Interest on bonds of other companies.....	1,198,225.80
Interest on miscellaneous investments.....	153,874.95
Interest on bank balances, etc.....	528,105.35
Total.....	\$28,074,418.92
EXPENDITURES.	
Operating expenses.....	14,432,423.66
Interest on first-mortgage bonds.....	3,921,370.00
Interest on other funded debt.....	626,380.00
Betterments and improvements.....	750,000.00
Taxes.....	789,959.90
Dividends.....	7,979,514.00
Total.....	28,499,647.56
Deficit.....	425,228.64

General balance sheet.

ASSETS.	
Cost of road and fixtures.....	\$224, 289, 446. 18
Cost of equipment.....	11, 180, 039. 74
Land contracts, land cash, etc.....	1, 955, 302. 55
Fuel, material, and stores on hand.....	1, 975, 973. 07
Cash on hand.....	1, 929, 656. 68
Company's stocks and bonds.....	477, 390. 00
Other stocks and bonds.....	111, 398, 711. 20
Miscellaneous investments.....	61, 631, 943. 52
Bills and accounts receivable.....	2, 824, 128. 51
Due from other companies on account of traffic...	469, 533. 35
Due from United States.....	610, 544. 13
Total.....	\$418, 742, 668. 93
LIABILITIES.	
First-mortgage bonds.....	100, 000, 000. 00
Interest on same due and accrued.....	2, 010, 100. 00
Other funded debt.....	93, 957, 000. 00
Interest on same accrued not due.....	626, 380. 00
Dividends unpaid.....	18, 905. 00
Pay rolls, vouchers, and accounts payable.....	9, 344, 353. 30
Taxes accrued not due.....	431, 537. 47
Insurance fund.....	127, 716. 74
Land accounts.....	2, 140, 370. 43
Improvement equipment fund.....	70, 056. 53
Set aside for dividends payable October 1, 1901...	4, 071, 006. 00
Capital stock.....	201, 538, 900. 00
Total.....	414, 336, 325. 47
Surplus.....	4, 406, 343. 46

THE CENTRAL PACIFIC RAILWAY COMPANY.

This company was originally chartered June 28, 1861, as the Central Pacific Railroad of California. On June 23, 1870, it was consolidated with the Western Pacific Railroad Company under the name of the Central Pacific Railroad Company; again, on August 22, 1870, with the California and Oregon Railroad (organized January 16, 1868), the San Francisco, Oakland and Alameda Railroad (organized October 15, 1868), and the San Joaquin Valley Railroad (chartered February 5, 1868). On July 29, 1899, the present company was incorporated as the successor of the Central Pacific Railroad Company. The road of this company is now operated by the Southern Pacific Company under a lease for ninety years from January 1, 1894, by the terms of which the operating company pays from the earnings all the expenses of operation, fixed and other charges, including sinking fund and United States requirements, and \$10,000 yearly for organization expenses, the Central Pacific to receive net earnings up to 6 per cent of the stock, and all excess to be equally divided between the companies.

Under the acts of July 1, 1862 (12 Stat., 489), and July 2, 1864 (13 Stat., 356), thirty-year 6 per cent bonds were issued by the United

States to aid in the construction of the Central Pacific, amounting to \$25,885,120, and of the Western Pacific, amounting to \$1,970,560, making a total of \$27,855,680, which were secured by second mortgage on the properties, the company's first mortgage being a prior lien to that of the United States.

As the company defaulted in the payment of these bonds upon their maturity, and also of the interest then due, a commission, consisting of the Secretaries of the Treasury and the Interior and the Attorney-General, was appointed by Congress to settle this indebtedness. This commission reported a plan to which the company agreed. Under this agreement the debt of the company to the Government, namely, \$58,812,715.48, was funded into twenty promissory notes, dated February 1, 1899, payable respectively on or before the expiration of each successive six months for ten years, each note being for the sum of \$2,940,635.78, which is one-twentieth of the amount due. Said notes bear interest at the rate of 3 per cent per annum, payable semiannually, and have a condition attached thereto to the effect that if default be made in any payment of either principal or interest of any said notes, or any part thereof, all of said notes then outstanding, principal and interest, shall immediately become due and payable, notwithstanding any other stipulation of the agreement of settlement.

Since the last report of this Bureau the Union Pacific Railroad Company has secured a controlling interest in the Southern Pacific Company, thus gaining a through line to the Pacific coast via the lines of the Central Pacific.

Under the acts of July 1, 1862, July 2, 1864, and July 25, 1866, the roads which form the present company received from the United States grants of land to aid in construction, as follows:

	Acres.
Central Pacific	8,000,000
Western Pacific	1,000,000
Oregon Branch Central Pacific (California and Oregon).....	3,500,000
Total	12,500,000

Ogden, Utah, and Sacramento, Cal.; Brighton and Niles, Cal.; Niles and San Jose, Cal., junction with Central Pacific Railroad and the southern boundary of Oregon, are the land-grant termini. The records of the General Land Office show that to June 30, 1901, there have been patented to the—

Central Pacific:	Acres.	Acres.
In California.....	843,726.28	
In Nevada.....	927,868.76	
In Utah	1,288,573.97	
In Idaho	8,094.24	
	3,068,263.25	
Western Pacific Railroad Company, in California.....		452,073.29
Oregon Branch Central Pacific Railroad, in California		3,051,080.08
Total		6,571,416.62

The report of the company shows that to June 30, 1901, there had been acquired by United States patent to the Central Pacific, 2,873,913.74 acres and to the California and Oregon 3,066,643.13 acres, making a total of 5,940,556.87 acres. Of this acreage there had been disposed of for cash and on time contracts 3,147,393.09 acres. The total cash receipts from all sales to date amounted to \$11,047,325.94, and there were outstanding on account of time sales \$811,382.45. The receipts from this department during the year amounted to \$284,685.90. The average price per acre now asked is \$3.

MILEAGE.		
Main line:		Miles.
Oakland wharf, California, to Ogden, Utah.....		872. 08
San Francisco to Oakland wharf (ferry).....		3. 69
Branch lines:		Miles.
Roseville Junction, Cal., to Oregon State line.....		296. 58
Lathrop to Goshen, Cal.....		146. 08
San Jose to Niles, Cal.....		17. 53
Oakland pier to East Oakland, Cal.....		4. 84
Oakland pier to Melrose, Cal.....		8. 31
Mastick to Alameda wharf, Cal.....		1. 25
Fernside to East Oakland, Cal.....		1. 98
		476. 57
Leased lines:		
Brighton to Sacramento, Cal.....		5. 64
Ogden, Utah, to point 5 miles west of Ogden.....		5
		10. 64
Total length of road.....		1, 362. 98
Length of double track.....		11. 92
Length of sidings.....		433. 50
		1, 808. 40

The track is laid with steel rails of various weights, from 50 to 80 pounds. There are 1,712.43 miles of fencing, exclusive of snowsheds, of which there are 32.08 miles. During the year 13,184.60 tons of new steel rails were laid, at a cost of \$471,491.30, and 837,609 new redwood and pine cross-ties were placed in the track, at a cost of \$376,805.66. The additions and betterments to railway, rolling stock, etc., charged to income account amounted to \$1,678,348.59.

The rolling stock at the close of the year consisted of 324 locomotives, and 320 cars in the passenger, 7,711 in the freight, and 325 in the miscellaneous departments, respectively.

The assessed valuation on June 30, 1901, of roadway, bridges, track, and rolling stock for taxation was \$13,000,000, or an average of \$17,408 per mile; the assessed valuation of real estate and buildings, tools, and furniture was \$3,523,015, or an average of \$4,717.73 per mile. The right of way, railroad, franchise, and rolling stock are all assessed as one by the State board of equalization. All other property is assessed by the local assessors.

The following statements show the operations for the year and the company's balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$5,618,081.71	\$5,499,862.67	\$118,219.04	
Freight	12,455,150.57	11,673,728.24	781,422.33	
Mail	729,230.67	718,739.29	10,491.38	
Express	313,799.15	297,294.41	16,504.74	
Miscellaneous	212,027.36	344,180.98		\$132,153.63
Total	19,328,289.45	18,533,806.59	794,483.86	
EXPENSES.				
Maintenance of way and structures	2,379,086.57	1,938,922.92	440,163.65	
Maintenance of equipment	2,288,258.89	2,008,735.54	284,523.35	
Conducting transportation	6,428,692.23	6,696,716.42		267,024.19
General expenses and taxes	1,094,902.07	973,376.72	121,525.35	
Total	12,190,839.76	11,611,751.60	579,088.16	
Net earnings	7,137,449.69	6,922,053.99	215,395.70	
Miles operated	1,362.98	1,362.98		
Earnings per mile	\$14,180.90	\$13,598.01	\$582.89	
Expenses per mile	8,944.25	8,519.39	424.86	
Net earnings per mile	5,236.65	5,078.62	158.03	
Percentage of expenses to earnings	63.07	62.65	.42	

Revenue and expenditures for year.

REVENUE.

Earnings	\$19,405,971.81
Profits on bonds of other companies	58,426.66
Dividends on stocks of other companies	14,469.90
Unlocated items transferred from unadjusted accounts	2,191.50
Profits on miscellaneous investments	2,819.46
Adjustment of Speyer & Co.'s due bill	50.00
Receipts of the land department	70,195.54
Interest, etc., on sinking fund	355,986.93
Wells, Fargo & Co.'s contract	32,000.00
Profits on new securities taken over for old Central Pacific Railroad bond purchase and canceled	7,085.83
Income from securities covered by 3½ per cent mortgage	367,388.24
Received from United States Government for interest on claims for services rendered prior to April 1, 1885	442,128.22
Received from United States Government for interest on claims for services rendered subsequent to April 1, 1885	87,162.67
Proceeds from sales of land	281,717.59
Total	\$21,107,594.35

EXPENDITURES.

Operating expenses.....	\$12,190,839.76	
Salaries and maintenance of organization	14,907.73	
Interest on funded debt.....	2,994,237.58	
Interest on notes to United States Government....	1,275,208.97	
Rentals.....	108,600.04	
Refunds on land sales prior to August 1, 1899.....	1,579.08	
Sinking-fund requirements.....	50,000.00	
Adjustment of sinking funds	85.03	
New construction.....	639,256.06	
New equipment	1,039,092.53	
Expenses of the land department.....	42,010.62	
Taxes on granted lands	75,522.22	
Total		\$18,431,339.62
Surplus.....		2,676,254.73

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment.....	\$186,566,360.26	
Cost of real estate.....	88,398.13	
Land contracts, land cash, etc	805,259.65	
Fuel, material, and stores on hand	2,131,323.49	
Cash deposited against bonds satisfied of mortgage.	33,640.00	
Stocks and bonds	416,418.06	
Miscellaneous investments	3,523.20	
Interest credited on United States of America 3 per cent notes	129,647.98	
Sinking funds in hands of trustees.....	9,816,416.35	
Bills receivable and loans.....	2,270.12	
Accounts receivable	4,195,583.73	
Southern Pacific Company, matured coupons....	1,149,161.24	
Southern Pacific Company, unadjusted accounts..	501,116.71	
Interest on sinking-fund securities accrued, not due	206,011.24	
Interest on bonds owned accrued, not due.....	2,946.43	
Total		\$206,048,076.59

LIABILITIES.

First-mortgage bonds.....	78,351,000.00
Interest on same due and accrued	121,013.18
Interest on same accrued, not due	1,028,148.06
United States 3 per cent notes.....	39,802,458.49
Interest on 3 per cent notes accrued, not due....	501,116.71
Dividends unpaid	7,335.00
Accounts payable.....	10,084.49
Trustees land-grant mortgage.....	77,019.41
Sinking funds uninvested	50,929.17
Uncompleted payments on land contracts	56,119.66
Central Pacific Railroad bonds satisfied of mort- gage.....	36,000.00
Principal of deferred payments on time contracts.	805,259.65
Bond-exchange account.....	212,500.00

First refunding mortgage bonds unadjusted	\$5, 827. 52	
Appropriation for betterments and additions.	271, 296. 00	
Capital stock.....	79, 275, 500. 00	
		<hr/>
Total		\$200, 611, 607. 34
Surplus.....		5, 436, 469. 25

In addition to the assets shown in above statement the company owns the lands granted by the United States to aid in the construction of the road, which now remain unsold. The value of these lands has not been closely determined nor satisfactorily estimated.

CENTRAL BRANCH RAILWAY COMPANY.

This company is the successor of the Central Branch Union Pacific Railway Company, and was incorporated July 8, 1899. The company was formed by articles of agreement and consolidation between the Atchison, Colorado and Pacific Railway Company, the Atchison, Jewel County and Western Railway Company, and the Central Branch Union Pacific Railway Company, whose charters were severally filed in the office of the secretary of state of Kansas before February, 1899. The articles of agreement and consolidation are dated June 12, 1900, and were approved in writing June 13, 1900, by the holders of more than two-thirds of all the stock held in each of the companies parties to said agreement.

This company includes the old Central Branch Union Pacific Railroad Company, the properties of which were bought at foreclosure sale on May 23, 1898, by Simon Borg and Gilmer Clapp, for \$2,350,000. The suit for foreclosure was brought by the trustees under the first mortgage, the proceeds of sale, \$2,350,000, going to cover principal of first-mortgage bonds and accrued interest thereon. It will thus be observed that in this transaction the United States, holder of the junior lien, received nothing by way of reimbursement for the indebtedness of this company, which on June 30, 1901, amounted to \$3,741,476.89. Under the acts of 1862 and 1864 this company received bonds from the United States to aid in its construction amounting to \$1,600,000, for which a second lien was taken on the road from Atchison to Water-ville, Kans., a distance of 100 miles. This principal with the accrued interest makes the total indebtedness referred to above \$3,741,476.89. The company has defaulted in the payment of this indebtedness and the date of such default was fixed by the Secretary of the Interior as January 1, 1896.

This office has been informed by the Attorney-General that no judicial proceedings have been taken with reference to this indebtedness of the company to the United States. The Attorney-General held, however, in an opinion rendered March 20, 1899, that—

While the United States is named as a defendant in the bill of complaint to fore-close the mortgage on the Central Branch Union Pacific Railroad, no subpoena,

citation, or other process was served upon it, nor did it appear as a party, and is therefore not barred by said decree of sale, and might still redeem the property or cause its resale on account of its subsidy lien.

This railroad, in accepting the assignment of the rights and franchises of the Hannibal and St. Joseph Railroad Company, and the grant of lands, bonds, etc., conferred by act of Congress in aid of its construction, succeeded also to, and had imposed upon it, all the obligations, limitations, and conditions with reference to the application of compensation for services for the Government toward the payment of these subsidy bonds.

One-half of the compensation due from time to time for the services rendered by this road for the Government should be withheld and applied upon the bonds issued by the United States in aid of its construction, notwithstanding the foreclosure and sale of the same.

This company received from the United States a grant of 781,944.83 acres of land. The records of the General Land Office show that to June 30, 1901, there had been patented to the company 222,869.09 acres. The report of the company gives no statistics of the amount of land it has received or the amount now on hand. The Secretary of the Interior has suspended the issuance of patents except for lands which were actually sold to bona fide purchasers before default by this company.

The line of the road extends from Atchison to Lenora, Kans., a distance of 293.39 miles. Branch lines aggregate 94.80 miles. There are 0.80 of a mile of double track and 50.60 miles of sidings. The line is laid with iron and steel rails, there being 243.87 miles of 63 and 52 pound steel rails and 144 miles of iron of 50 pounds per yard.

The cross-ties are oak and average 2,900 to the mile. There are 616.67 miles of barbed-wire fencing, and bridges aggregating 26,899 feet in length. The ballast consists of 27.20 miles of stone, 50.78 miles of cinder, and 310.21 miles of earth.

There were no renewals of rails during the year. Oak cross-ties numbering 197,008 were placed in the track, at a cost of \$121,371.61. Betterments to railway and rolling stock were effected through expense account, but no improvement account is kept. The rolling stock consists of 26 locomotives, and 23 cars in the passenger, 923 in the freight, and 206 in the miscellaneous departments, respectively. The assessed valuation of roadway, bridges, track, buildings, etc., for taxation is \$1,915,967, and of rolling stock and equipment, \$285,062.

The following statements show the operations for the year and the company's general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$230,081.13	\$199,154.67	\$30,926.46	
Freight.....	976,396.16	1,021,575.43		\$45,179.27
Mail.....	48,809.75	48,814.96		5.21
Express.....	20,120.82	17,092.77	3,028.05	
Miscellaneous.....	50,319.08	43,677.57	6,641.51	
Total.....	1,325,726.94	1,330,315.40		4,588.46
EXPENSES.				
Maintenance of way and structures.....	363,504.92	269,922.49	93,582.43	
Maintenance of equipment.....	87,445.33	119,240.73		31,795.40
Conducting transportation.....	507,144.13	517,746.12		10,601.99
General expenses.....	35,780.58	40,146.78		4,366.20
Total.....	993,874.96	947,056.12	46,818.84	
Net earnings.....	331,851.98	383,259.28		51,407.30
Miles operated.....	388.19	388.19		
Earnings per mile.....	\$3,415.15	\$3,426.96		\$11.81
Expenses per mile.....	2,560.27	2,439.67	\$120.60	
Net earnings per mile.....	854.88	987.29		132.41
Percentage of expenses to earnings.....	74.97	71.11	3.86	

Revenue and expenditures for year.

REVENUE.	
Earnings, including rentals.....	\$1,333,108.98
Sundry amounts.....	21,842.87
Total.....	\$1,354,951.85
EXPENDITURES.	
Operating expenses and taxes.....	1,080,883.07
Interest on funded debt.....	238,360.00
Sundry amounts.....	434.23
Total.....	1,319,677.30
Surplus.....	35,274.55

General balance sheet.

ASSETS.	
Cost of road, fixtures, and equipment.....	\$13,893,470.54
Cost of real estate.....	25,979.96
Stocks and bonds.....	1,001.00
Accounts receivable.....	130,251.17
Total.....	\$14,050,702.67
LIABILITIES.	
Funded debt.....	5,959,000.00
Interest on same due and unpaid.....	5,220.00
Interest on same accrued not due.....	65,983.33
Capital stock.....	7,585,000.00
Total.....	13,615,203.33
Surplus.....	435,499.34

SIOUX CITY AND PACIFIC RAILROAD COMPANY.

This road is operated as a part of the Chicago and North-Western system, that company owning all but a few shares of the common capital stock.

Under the Pacific railroad acts of 1862 and 1864 the Sioux City and Pacific Railroad Company received bonds from the United States, to aid in its construction, to the amount of \$1,628,320. The portion of the road which received this aid extends from Sioux City to California Junction, Iowa, thence to Fremont, Nebr., a distance, under the original measurement, of 101.77 miles; the United States bonds issued to the company were secured by a second mortgage on this portion of the road. These subsidy bonds matured January 1, 1898, and default was made by the company in repayment thereof to the Government. The first-mortgage bonds of the company, amounting to \$1,628,000, which constitute a lien prior to that of the United States, also matured January 1, 1898.

The excess of interest paid by the United States on the subsidy bonds over all credits allowed amounted on June 30, 1900, to \$2,570,405.71, which, with the principal outstanding, made the balance of debt due the Government \$4,198,725.71.

On June 6, 1900, the following legislation relative to the indebtedness of this company to the Government was enacted:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury, the Secretary of the Interior, and the Attorney-General of the United States are hereby authorized and empowered to make settlement and adjustment of the Sioux City and Pacific Railroad Company's indebtedness to the Government of the United States; and to that end may receive and determine upon any proposition or propositions from said Sioux City and Pacific Railroad Company or from any other person or persons, corporation or corporations, and may sell or assign the mortgage given by said company to the United States and do any and all things proper and necessary to effect such settlement and adjustment and secure to the United States the largest sum possible in the payment of said indebtedness up to the full amount thereof: *Provided,* That they deem the same for the best interests of the Government; and when such settlement is approved by the President it shall become operative, and the Attorney-General shall make the necessary acquittances to said railroad company.

In pursuance of this legislation, all the claims, rights, and demands of the United States against the Sioux City and Pacific Railroad Company on account of subsidy bonds issued by the Government in aid of the construction of said road, were offered for sale on June 20, 1901, of which full public notice had previously been given. On said date the claim of the United States was sold to the Chicago and North-Western Railway Company for \$1,872,000 in cash and \$250,841.24 earned by the Sioux City and Pacific Railroad Company by transportation services performed for the Government but surrendered by the company to be applied to its indebtedness. The total amount realized

from the sale, therefore, was \$2,122,841.24. Under the terms of sale the United States also retains any further amount earned by the road for transportation services performed for the Government to the date of sale. This agreement reads as follows:

Whereas by an act of Congress approved June 6, 1900, the Secretary of the Treasury, the Secretary of the Interior, and the Attorney-General of the United States were authorized and empowered, subject to the approval of the President of the United States, to make settlement and adjustment of the Sioux City and Pacific Railroad Company's indebtedness to the Government of the United States, and, to that end, to receive and determine upon any proposition or propositions from said Sioux City and Pacific Railroad Company, or from any other person or persons, corporation or corporations, and to sell or assign the mortgage given by said company to the United States, and to do any and all things proper and necessary to effect such settlement and adjustment, and secure to the United States the largest sum possible toward the payment of such indebtedness; and

Whereas, pursuant to said act of Congress, said Secretary of the Treasury, Secretary of the Interior, and Attorney-General of the United States did offer for sale to the highest bidder at a public auction held in Washington, D. C., on June 20, 1901, all claims, demands, credits, and rights of the United States against said Sioux City and Pacific Railroad Company on account of or in connection with the subsidy bonds issued by the United States in aid of the construction of said railroad under the acts of Congress of July 1, 1862, and July 2, 1864, or such other acts as may have authorized such aid, or on account of or in connection with the payment by the United States of any principal or interest of any of said subsidy bonds, including any lien, mortgage, or other security for such claims, demands, credits, or rights; and at said public auction the Chicago and Northwestern Railway Company made the highest and best bid for all said claims, demands, credits, and rights of the United States, to wit, the sum of \$1,872,000; and

Whereas said bid of the Chicago and Northwestern Railway Company has been accepted and the full amount thereof has been paid into the Treasury of the United States; and

Whereas the President of the United States approves the sale of said claims, demands, credits, and rights of the United States to the Chicago and Northwestern Railway Company for its aforesaid bid and approves the execution of this instrument in completion of such sale:

Now, therefore, the Secretary of the Treasury, the Secretary of the Interior, and the Attorney-General of the United States, acting for the United States of America, under and by virtue of the power and authority conferred on them by said act of Congress approved June 6, 1900, do hereby sell and assign, and the United States of America do hereby transfer and set over to the Chicago and Northwestern Railway Company all said claims, demands, credits, and rights of the United States against the Sioux City and Pacific Railroad Company on account of or in connection with said subsidy bonds issued by the United States in aid of the construction of said railroad, or on account of or in connection with the payment by the United States of any principal or interest of any of said subsidy bonds, and every lien, mortgage, or other security held by the United States for any of said claims, demands, credits, or rights, to have and to hold for the sole use and benefit of said Chicago and Northwestern Railway Company. Said indebtedness, on June 20, 1901, amounts to the sum of \$4,180,018.20, less such sum or sums accrued and accruing to said Sioux City and Pacific Railroad Company up to and including June 19, 1901, for services rendered in transporting mails and other matters for the United States Government not now possible of exact statement, but amounting to \$250,000, more or less.

In witness whereof said Secretary of the Treasury, Secretary of the Interior, and Attorney-General of the United States have subscribed these presents for and on

behalf of the United States of America, and the President of the United States has affixed his signature in approval of these presents, all on this 20th day of June, A. D. 1901.

UNITED STATES OF AMERICA,

By L. J. GAGE,

Secretary of the Treasury.

E. A. HITCHCOCK,

Secretary of the Interior.

P. C. KNOX,

Attorney-General.

Approved.

WILLIAM MCKINLEY,

President of the United States.

The company also received from the United States a grant of land estimated at 60,000 acres. The records of the General Land Office show that to June 30, 1901, there had been patented to the company in the State of Nebraska 37,582.35 acres, and in the State of Iowa 4,743.11 acres; total, 42,325.46 acres. All these lands, other than the portion now used for railroad purposes, were sold by the company prior to August 1, 1875. Sioux City, Iowa, via California Junction and Fremont, Nebr., are the land-grant termini.

The report of the company shows that there are 4.85 miles of 72-pound American steel rail, 97.70 miles of 60-pound American steel rail, and 4.87 miles of 56-pound iron rail; and there are 97.50 miles of barbed-wire fencing. During the year 23,578 cedar and oak cross-ties were placed in the track, costing \$14,910.01.

The additions and betterments to the railway and rolling stock during the year amounted to \$15,021.40. The assessed valuation of the railroad, including buildings and equipment, for taxation was \$574,526; an average per mile of \$5,348.

The following statements show the operations of the company for the fiscal year and the general balance sheet of the company on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$256,168.11	\$231,666.48	\$24,501.63	.....
Freight	275,134.19	263,811.78	11,322.41	.....
Mail	37,294.66	36,374.62	920.04	.....
Express	11,440.77	10,117.60	1,323.17	.....
Miscellaneous	18,686.18	18,521.36	863.77	.....
Total	598,922.76	560,491.74	38,431.02	.....
EXPENSES.				
Maintenance of way and structures	48,458.90	39,264.97	9,188.98	.....
Maintenance of equipment	39,035.19	63,490.48	.....	\$24,445.29
Conducting transportation	255,983.65	261,182.86	4,760.79	.....
General expenses and taxes	39,914.91	38,251.71	1,663.20	.....
Total	383,337.65	392,180.02	.....	8,842.37
Net earnings	215,585.11	168,311.72	47,273.39	.....
Miles operated	107.42	107.42	.....	.....
Earnings per mile	\$5,575.52	\$5,217.76	\$357.76	.....
Expenses per mile	3,568.59	3,650.90	.....	\$82.31
Net earnings per mile	2,006.93	1,566.86	440.07	.....
Percentage of expenses to earnings	64.00	69.97	.....	5.97

Revenue and expenditures for year.

REVENUE.		
Earnings	\$598,922.76	
Profit and loss	6,857.64	
Total		\$605,780.40
EXPENDITURES.		
Operating expenses.....	383,337.65	
Interest on first-mortgage bonds.....	97,680.00	
Interest on other funded debt.....	97,713.95	
Interest on other debt.....	2,002.00	
New construction.....	15,021.40	
Interest on preferred stock.....	11,830.00	
Total		604,585.00
Surplus.....		1,195.40

General balance sheet.

ASSETS.		
Cost of road, fixtures, and equipments.....	\$5,783,460.91	
Fuel, material, and stores on hand	42,023.26	
Cash on hand.....	193,808.83	
Accounts receivable	140,021.23	
Amount of adjudicated and unadjudicated accounts for Government transportation	581,172.52	
Total		\$6,740,486.75
LIABILITIES.		
First-mortgage bonds.....	1,628,000.00	
Interest on same due and accrued	1,455.00	
Interest on same accrued not due.....	48,840.00	
United States subsidy bonds	1,628,320.00	
Interest on same paid by United States	3,219,897.84	
Interest on preferred stock accrued not due	2,957.51	
Pay rolls and vouchers	54,772.22	
Due other companies, account traffic.....	28,127.61	
Capital stock.....	2,068,400.00	
Total		8,680,770.18
Deficit.....		1,940,283.43

LAND-GRANT ROADS.

ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY.

This company was chartered December 12, 1895, and succeeded to the property and franchises of the Atchison, Topeka and Santa Fe Railroad Company, whose property was sold under foreclosure on December 10, 1895. The new company assumed control on January 1, 1896.

By the act of Congress approved March 3, 1863, the Atchison, Topeka and Santa Fe Railroad Company received from the United States, through the State of Kansas, a grant of 3,000,000 acres of land. Atchison, Kans., and State line Kansas and Colorado; Lawrence, Kans., and southern boundary of Kansas, near Coffeyville, are the land-grant termini. By the same act a grant of 800,000 acres was made to the Leavenworth, Lawrence and Galveston Railroad Company, which was acquired by this company by consolidation on April 16, 1885.

The records of the General Land Office show that to June 30, 1901, there had been patented to the Atchison, Topeka and Santa Fe Railroad Company 2,944,788.14 acres, and to the Leavenworth, Lawrence and Galveston Railroad Company 249,446.13 acres. The granted lands did not pass under the reorganization to the new company, but remained in the possession of the receivers for the old company, and were sold by them for the benefit of the creditors of that company. The present company has consequently no lands to report upon.

The report of the company on the form prescribed by this office includes the property and operations of the following-named companies, of which practically the entire issue of capital stock and bonds is owned by this company and pledged as part of the security for its general-mortgage bonds, and the property of which is operated as a part of this system, viz:

Atchison, Topeka and Santa Fe.
The Chicago, Kansas and Western.
The Eastern Oklahoma.
Rio Grande and El Paso.
The Guthrie and Western.

The company operated 1,604.36 miles of main line and 3,213.18 miles of branch lines, making total length of road 4,817.54 miles. There are 73.82 miles of double track and 1,103 miles of sidings. Steel rails are laid on 4,750.92 miles of track, and there are 3,041.90 miles of barbed-wire fencing. The ballast consists of 750.85 miles of stone, 514.92 miles of gravel, 46.53 miles of slag, 238.47 miles of cinder, 3,159.95 miles of earth, and 77.12 miles of gumbo.

During the year 14,169.50 tons of new steel rails were laid, at a cost of \$368,410.24, and 1,309,774 cross-ties were placed in the track, costing \$615,136.19. The additions and betterments to railway, etc., which were charged to construction account, amounted to \$9,987,354.05. The additions and betterments to rolling stock during the year, charged to equipment account, amounted to \$1,000,051.34. The rolling stock consists of 924 locomotives and 564 cars in the passenger, 24,912 cars in the freight, and 353 cars in the miscellaneous departments, respectively. The assessed valuation of roadway, etc., for taxation was

\$31,167,400, an average of \$6,639.16 per mile. The assessed valuation of rolling stock was \$4,304,946.

The following statements show the operations for the year and the general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$7,440,257.21	\$6,228,194.14	\$1,212,063.07	
Freight.....	25,054,414.97	22,807,857.97	2,247,057.00	
Mail.....	923,568.41	906,863.75	17,704.66	
Express.....	1,236,489.58	949,270.44	287,169.09	
Miscellaneous.....	551,139.20	445,889.59	105,749.61	
Total.....	35,205,819.32	30,831,075.89	4,374,743.43	
EXPENSES.				
Maintenance of way and structures..	8,897,590.82	4,060,566.34		\$162,975.52
Maintenance of equipment.....	8,753,596.13	8,476,822.83	277,272.80	
Conducting transportation.....	10,419,415.58	9,552,750.29	866,665.29	
General expenses and taxes.....	2,067,577.67	1,912,981.30	174,646.37	
Special betterment account.....	900,000.00		900,000.00	
Total.....	21,058,179.20	19,002,570.26	2,055,608.94	
Net earnings.....	14,147,640.12	11,828,505.63	2,319,134.49	
Miles operated.....	4,817.54	4,806	11.54	
Earnings per mile.....	\$7,307.84	\$6,415.12	\$892.72	
Expenses per mile.....	4,371.14	3,958.92	417.22	
Net earnings per mile.....	2,936.70	2,461.20	475.50	
Percentage of expenses to earnings...	59.81	61.68		1.82

Revenue and expenditures for year.

REVENUE.	
Earnings.....	\$35,205,819.32
Dividends on stocks of other companies.....	13,400.00
Interest on bonds of other companies.....	108,186.24
Profits on miscellaneous investments.....	12,868.02
Interest on miscellaneous investments.....	188,830.27
Net income from separately operated roads forming part of the system, the stocks and bonds of which are pledged under the general mortgage.....	5,864,718.64
Surplus June 30, 1900.....	9,994,619.58
Total.....	\$51,388,442.07
EXPENDITURES.	
Operating expenses.....	21,058,179.20
Interest on general-mortgage bonds.....	5,333,965.00
Interest on other funded debt.....	2,496,845.83
Losses on miscellaneous investments.....	30,303.38
Dividends.....	7,238,022.50
Deductions for year.....	2,148,385.75
Total.....	38,305,701.66
Surplus.....	13,082,740.41

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment.....	\$411,650,564.65
Capital stock preferred in trust.....	17,286,470.00
Improvements, auxiliary companies.....	7,890,875.52
Fuel, material, and stores on hand.....	1,156,830.81
Cash on hand.....	8,963,864.27
Company's stocks and bonds.....	2,898,496.26
Other stocks and bonds.....	335,426.51
Sinking fund in hands of trustees.....	189,669.86
Accounts receivable.....	4,083,834.01
Bills receivable.....	14,419.40
Due from agents.....	295,894.51
Suspense accounts.....	10,057.93
Total.....	\$454,776,403.73

LIABILITIES.

General mortgage bonds.....	138,727,500.00
Interest on same, due and accrued.....	88,340.00
Interest on same accrued, not due.....	1,362,495.00
Other funded debt.....	60,308,210.00
Interest on same, due and unpaid.....	103,665.00
Interest on same accrued, not due.....	1,677,810.00
Pay rolls and vouchers.....	2,717,750.05
Due other companies account traffic.....	181,973.22
Accrued taxes not yet due.....	637,014.00
Unascertained liabilities accrued prior to January 1, 1896, estimated.....	265,598.96
Rolling-stock replacement fund.....	509,027.04
Rail-renewal fund.....	131,523.63
Special betterment fund.....	1,239,309.18
Fuel-reserve fund.....	257,447.24
Capital stock.....	233,486,000.00
Total.....	441,693,663.32
Surplus.....	13,082,740.41

CHICAGO AND NORTH-WESTERN RAILWAY COMPANY.

This company was incorporated June 7, 1859, as the successor of the Chicago, St. Paul and Fond du Lac Railroad Company, and its entire main line was opened to public business on September 1, 1859. By consolidations formed at various times the lines of the following companies were acquired:

- Dixon, Rockford and Kenosha Railway.
- Galena and Chicago Union Railroad.
- Peninsula Railroad.
- Beloit and Madison Railroad.
- Baraboo Air Line Railroad.
- La Crosse, Trempeleau and Prescott Railroad.
- Menominee River Railroad.
- Escanaba and Lake Superior Railway.
- Elgin and State Line Railway.
- Chicago, Milwaukee and Northwestern Railway.

The company has also acquired by purchase the property and franchises of the following companies:

Galeville and Mississippi River Railroad.
 Rock River Railroad.
 Chicago, Iowa and Nebraska Railroad.
 Cedar Rapids and Missouri River Railroad.
 Maple River Railroad.
 Stanwood and Tipton Railway.
 Iowa Midland Railway.
 Ottumwa, Cedar Falls and St. Paul Railway.
 Iowa Southwestern Railway.
 Des Moines and Minneapolis Railroad.
 Maple Valley Railway.
 Janesville and Evansville Railway.
 Sioux Valley Railway.
 Iowa Railway, Coal and Manufacturing Company.
 Linn County Railway.
 Sycamore and Cortland Railroad.
 Northern Illinois Railway.
 Lake Geneva and State Line Railway.
 Iron River Railway.
 Iron Range Railway.
 Toledo and North-Western Railway.
 Junction Railway.
 Paint River Railway.
 Milwaukee, Lake Shore and Western Railway.
 Wisconsin Northern Railway.
 Iowa, Minnesota and Northwestern Railway.
 Boyer Valley Railway.
 Minnesota and Iowa Railway.
 Boone County Railway.
 Harlan and Kirkman Railway.
 Southern Iowa Railway.
 Princeton and Northwestern Railway.
 Peoria and Northwestern Railway.
 Winona and St. Peter Railroad (including the railroads of the Dakota Central Railway Company, the Minnesota and South Dakota Railway Company, and the Mankato and New Ulm Railway Company theretofore acquired.)

The following-named companies are controlled by the Chicago and North-Western Railway Company by ownership of capital stock, and their operations and accounts are included in the report to this office:

Princeton and Western Railway.
 Florence County Railway.
 Menville Extension Railway.

The company also operates under lease the St. Paul and Eastern Grand Trunk Railway, owns the entire capital stock of the Fremont, Elkhorn and Missouri Valley Railroad Company, and has a controlling interest in the Sioux City and Pacific and the Chicago, St. Paul, Minneapolis and Omaha Railway companies, but the operations of the last two companies are reported separately to this office.

The number of acres of land granted to aid in the construction of the roads forming part of the system was 7,642,821.19. Winona, Minn., and Big Sioux River, near Watertown Station; Cedar Rapids, Iowa, to transfer grounds, Union Pacific Railway, and Lyons, Iowa, to Clinton, Iowa, are the land-grant termini.

The records of the General Land Office show that to June 30, 1901, of the foregoing grants land had been patented as follows:

	Acres.
Cedar Rapids and Missouri River.....	1,056,232.92
Chicago, St. Paul, Minneapolis and Omaha	2,170,946.95
St. Paul and Sioux City.....	1,123,578.55
Sioux City and St. Paul.....	407,910.21
Sioux City and Pacific.....	42,085.46
Winona and St. Peter	1,678,618.06
Chicago and Northwestern.....	1,064,406.35
Total.....	<u>7,543,779.50</u>

The records of the General Land Office also show that 125,000 acres of railroad indemnity lands located in Wisconsin belonging to the Chicago, St. Paul, Minneapolis and Omaha Railway Company had been restored, and that on the recommendation of the Commissioner, affirmed by the Secretary of the Interior, 26,017.33 acres located in Iowa belonging to the Sioux City and St. Paul Railroad were also restored to the public domain on September 12, 1887, and 21,979.85 acres in Iowa on February 27, 1896. The company still owns 581,684.59 acres.

The total cash receipts of the company from all sales of land to date amounted to \$10,592,299.70, and there were outstanding on account of time sales \$550,158.35. The receipts from the land department during the year amounted to \$415,922.93, and the expenditures to \$73,329.90. The land sold at an average price per acre of \$8.95.

The mileage of the system June 30, 1901, was 5,585.53. The road is practically all laid with steel; 4,833.85 miles of line are fenced.

During the year 12,647.66 tons of new steel rails were laid, at a cost of \$336,864.12, and 1,858,802 new cross-ties were placed under the track, costing \$785,847.09. The ballast consists of 180.61 miles of stone and slag, 3,582.61 miles of gravel, 249.16 miles of cinder, and 1,564.42 miles of earth and sand. The additions and betterments to railway during the year amounted to \$3,773,477.45 and to rolling stock to \$35,411.07.

The rolling stock consists of 1,060 locomotives, and 941 cars in the passenger, 41,464 in the freight, and 332 in the road and miscellaneous departments, respectively.

The railway, including buildings, rolling stock, etc., is assessed in the States of Illinois, Iowa, and North and South Dakota at \$16,894,017. In Wisconsin, Michigan, and Minnesota no assessment is made, the tax being levied as a percentage of the gross earnings.

The statements following show the operations of the company for the year and the general balance sheet on June 30, 1901.

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$9,751,678.10	\$9,194,321.87	\$557,356.23	
Freight	32,041,642.87	32,252,081.75		\$210,888.88
Mail	1,051,397.60	1,024,470.83	26,926.77	
Express	588,057.44	578,399.12	9,658.32	
Miscellaneous	380,097.29	841,771.34	38,325.95	
Total	43,812,868.30	43,890,994.91	421,878.89	
EXPENSES.				
Maintenance of way and structures ..	5,588,929.20	5,665,326.81		126,897.61
Maintenance of equipment	3,920,570.81	4,324,819.46		404,248.65
Conducting transportation	16,203,969.25	15,607,124.32	596,844.93	
General expenses and taxes	2,282,958.73	2,014,294.62	218,664.11	
Total	27,896,427.99	27,611,565.21	284,862.78	
Net earnings	15,916,440.31	15,779,429.70	137,010.61	
Miles operated	5,585.58	5,571.23	14.30	
Earnings per mile	\$7,843.95	\$7,788.40	\$55.55	
Expense per mile	4,994.41	4,966.09	38.32	
Net earnings per mile	2,849.54	2,822.31	17.23	
Percentage of expenses to earnings ..	63.67	63.68	.04	

Revenue and expenditures for year.

REVENUE.	
Earnings	\$43,812,868.30
Dividends on stocks of other companies	1,424,565.00
Interest on miscellaneous investments (loss)	10,134.05
Receipts of the land department	640,658.59
Total	\$45,867,957.84
EXPENDITURES.	
Operating expenses	27,896,427.99
Interest on funded debt	7,054,598.95
Interest paid in advance of maturity on bonds taken up and funded into 3½ per cent general mortgage gold bonds of 1887	74,629.63
Appropriated by the board of directors for construction, improvements to, and permanent addition to the property	4,169,526.06
Rental	30,090.07
Sinking-fund requirements and guaranteed interest	249,989.93
New construction	3,773,477.45
New equipment	35,411.07
Dividends	3,914,394.00
Expenses of the land department	118,181.83
Total	47,316,726.98
Deficit	1,448,769.14

General balance sheet.

ASSETS.	
Cost of road, fixtures, and equipment	\$186,580,613.04
Cost of real estate and property	2,365,000.00

Fuel, material, and stores on hand	2, 389, 321. 01
Cash on hand	6, 997, 475. 32
Company's stocks and bonds	6, 150, 022. 61
Other stocks and bonds, including bonds held by trustee as collateral for bonds of Chicago and North-Western Railway Company issue.....	25, 375, 571. 50
Trustees of payments and accretions to sinking fund	9, 780, 569. 54
Bills receivable	124, 614. 35
Accounts receivable	3, 092, 953. 19
Total	\$242, 856, 140. 56

LIABILITIES.

First-mortgage bonds	149, 329, 000. 00
Interest on same, due and accrued.....	357, 033. 52
Interest on same, accrued, not due	1, 624, 267. 18
Dividends unpaid	13, 995. 00
Dividends declared, payable July, 1901	1, 565, 284. 50
Accounts payable	34, 440. 00
Pay rolls and vouchers	3, 710, 364. 69
Due other companies on account of traffic.....	362, 061. 08
Due other companies on account of leases	6, 000. 00
Sinking-fund installments paid	7, 793, 198. 70
Accretions to sinking fund	1, 987, 370. 84
Fremont, Elkhorn and Missouri Valley Railroad ..	280, 356. 54
Missouri Valley and Blair Railway and Bridge Company	302, 968. 59
Capital stock.....	66, 227, 320. 53
Total	233, 593, 661. 17
Surplus	9, 262, 479. 39

CHICAGO, BURLINGTON AND QUINCY RAILROAD COMPANY.

This company was incorporated by charter act passed February 14, 1855, and its entire main line was opened to public business on January 1, 1880. The former name of the company was Aurora Branch Railroad Company, afterwards changed to Chicago and Aurora Railroad Company. The following companies have been acquired at various times by consolidation, viz, Central Military Tract Railroad, Peoria and Oquawka Railroad (afterwards Peoria and Burlington Railroad), Northern Cross Railroad (afterwards Quincy and Chicago Railroad), Burlington and Missouri River Railroad, Burlington and Missouri Railroad, Burlington and Missouri River Railroad in Nebraska, and Republican Valley Railroad. The Hannibal and St. Joseph Railroad Company is now operated as part of this company's road, and its accounts are incorporated herewith.

By act of Congress approved May 15, 1856, there were granted by the United States to the State of Iowa, to aid in the construction of this road between Burlington and the Missouri River at East Platts-mouth, Iowa, 948,643.66 acres of land, and by the act of July 2, 1864, to the Burlington and Missouri River Railroad in Nebraska, to aid in

construction from Plattsmouth to Kearney Junction, Nebr., 2,441,600 acres; total, 3,390,243.66 acres of land.

The records of the General Land Office show that to June 30, 1901, there had been patented to the Burlington and Missouri River Railroad Company, in Iowa, 389,989.71 acres, and in Nebraska, 2,374,090.77 acres; a total of 2,764,080.48 acres patented.

The company reports that it has received by United States patent 2,976,337.11 acres of land. There have been disposed of for cash and on time sales 2,963,097.73 acres (including lands reclaimed by the United States). On June 30, 1901, there were outstanding on account of time sales, principal and interest, \$193,412.34. The receipts from the land department during the year amounted to \$135,192.52, and the expenses to \$14,637.52. The remaining lands are held at an average price of \$4 per acre.

The company owns and operates 7,614.45 miles of track and has trackage rights over 175.01 miles, making the total length operated 7,789.46 miles. There are 425.58 miles of second track, 23.55 miles of third track, and 1,760.26 miles of sidings.

New steel rails were laid during the year amounting to 58,386.97 tons, and there were placed under the track 674,884 cedar and 2,709,058 oak cross-ties. The betterments to railway, etc., during the year amounted to \$53,248,281.80 and to rolling stock to \$1,438,075.56.

The rolling-stock equipment on June 30, 1901, consisted of 1,153 locomotives, 987 cars in the passenger service, 43,385 in the freight service, and 762 road and miscellaneous cars.

The following statements show the operations of the company for the year and the general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$11, 533, 207. 71	\$8, 048, 890. 31	\$3, 484, 317. 40	
Freight.....	83, 376, 309. 40	26, 427, 566. 42	6, 948, 742. 98	
Mail.....	1, 897, 644. 75	1, 582, 772. 75	314, 872. 00	
Express.....	910, 821. 82	765, 969. 56	144, 862. 26	
Miscellaneous.....	1, 937, 082. 95	1, 136, 879. 38	800, 203. 57	
Total.....	49, 655, 066. 63	37, 962, 068. 42	11, 692, 998. 21	
EXPENSES.				
Maintenance of way and structures.....	8, 520, 815. 31	6, 529, 581. 05	1, 991, 234. 26	
Maintenance of equipment.....	6, 051, 203. 13	4, 410, 331. 25	1, 640, 871. 88	
Conducting transportation.....	16, 032, 478. 71	11, 593, 619. 01	4, 438, 859. 70	
General expenses and taxes.....	3, 084, 290. 93	2, 367, 928. 22	716, 362. 71	
Total.....	33, 688, 788. 08	24, 901, 459. 53	8, 787, 328. 55	
Net earnings.....	15, 966, 278. 55	13, 060, 608. 89	2, 905, 669. 66	
Miles operated.....	7, 789. 46	6, 412. 48		
Earnings per mile.....	\$6, 374. 64	\$5, 920. 08	\$454. 61	
Expenses per mile.....	4, 324. 91	3, 883. 28	441. 63	
Net earnings per mile.....	2, 049. 73	2, 036. 75	12. 98	
Percentage of expenses to earnings.....	67. 85	65. 76	2. 09	

RAILROAD ACCOUNTS.

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Revenue and expenditures for year.

REVENUE.

Earnings	\$49,655,066.63
Dividends on stocks	85,656.25
Interest on bonds of other companies.....	15,491.40
Interest on miscellaneous investments.....	238,005.56
Receipts of the land department.....	135,192.52
Total	<u>\$50,127,412.36</u>

EXPENDITURES.

Operating expenses and taxes	33,688,788.08
Interest on funded debt.....	7,459,978.65
Rents paid.....	327,892.82
Other deductions from income	488,600.00
Dividends	6,652,557.50
Expenses of the land department.....	14,637.52
Total	<u>48,632,454.57</u>
Surplus.....	<u>1,494,957.79</u>

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment.....	\$288,289,112.17
Cost of real estate	306,175.67
Fuel, material, and stores on hand.....	3,943,268.82
Cash on hand and current assets	9,233,946.08
Stocks and bonds owned by company.....	3,168,803.62
Miscellaneous investments	5,784,166.03
Sinking fund in hands of trustees	13,938,789.09
Total	<u>\$324,664,261.48</u>

LIABILITIES.

Bonds	147,204,300.00
Credit by interest on same	12,004.99
Dividends, bills, and accounts payable	7,079,252.96
Sinking funds.....	21,599,245.25
Renewal fund.....	10,000,000.00
Current accounts balance	1,827,116.06
Income account	17,229,354.33
Capital stock.....	110,577,700.00
Total	<u>315,504,963.61</u>
Surplus.....	<u>9,159,297.87</u>

CHICAGO, MILWAUKEE AND ST. PAUL RAILWAY COMPANY.

This company has not submitted a report of its operations on the form prescribed by this office, but as complete a statement as possible has been compiled from its printed annual report to the stockholders for June 30, 1901.

The company was originally organized May 5, 1863, as the Milwaukee and St. Paul Railway Company, and on February 14, 1874, its name was changed, under legislative authority, to Chicago, Milwaukee and St. Paul Railway Company. The company has acquired by purchase at various times, among others, the following railroads, viz: McGregor and Missouri River Railroad, Minnesota Central Railroad, Hastings and Dakota Railroad, and the Southern Minnesota Railroad, all of which were aided in construction by grants of Government lands.

By acts of Congress approved March 3, 1857, May 12, 1864, and July 4, 1866, lands were granted by the United States through the States of Iowa and Minnesota, as follows:

	Acres.
McGregor and Missouri River.....	1,536,000
Minnesota Central.....	643,403
Hastings and Dakota.....	550,000
Southern Minnesota.....	794,619.45
Total.....	3,524,022.45

The records of the General Land Office show that, to June 30, 1901, there had been patented to the—

	Acres.
Chicago, Milwaukee and St. Paul }.....	325,929.54
McGregor and Missouri River ... }	
Minnesota Central.....	179,774.29
Hastings and Dakota.....	374,860.46
Southern Minnesota.....	546,284.69
Total.....	1,426,848.98

St. Paul, via Mendota or St. Paul Junction, Faribault, Austin, and Lyle, Minn.; Minneapolis, via same route and Lyle, Minn.; Calmar and Sheldon, Iowa; junction with Chicago, St. Paul, Minneapolis and Omaha, St. Paul and Sioux City division; Hastings, Minn., and Ortonville, at western boundary of State; Mississippi River (La Crescent), opposite La Crosse, Wis., and Houston, Minn., and Airlie, on western boundary of Minnesota, are the land-grant termini.

The company's report to its stockholders gives no information concerning lands. The following statistics have been compiled from above report: The company owns solely 8,505.11 miles, owns jointly with other companies 84.56, and uses under contract 170.22 miles, making the total operated 8,759.89 miles, including sidings, second, and third tracks.

The equipment in use on June 30, 1901, consisted of 890 locomotives, 1,421 cars in passenger service, 320 baggage, mail, express, and combination cars, 37,428 cars in the freight, and 589 in miscellaneous service. The company also owns the following narrow-gauge equipment: 7 locomotives, 4 passenger cars, 305 freight, and 5 caboose cars. During the year there were expended from the fund for replacement of rolling stock the sum of \$383,352.29, and for new rolling

stock \$1,111,255.56, charged to operating expenses. There were on June 30, 1891, in the freight service 24,814 cars, with a carrying capacity of 466,671 tons, while on June 30, 1901, there were 37,733 cars, with a carrying capacity of 925,109 tons.

For additions and improvements to property the sum of \$5,986,152.19 was expended and charged to the cost of road and equipment during the year.

The following tables show the operations for the year and the company's balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$7,989,215.76	\$7,698,518.51	\$240,702.25	
Freight	31,857,992.49	31,220,217.27	137,775.22	
Mail, express, etc	8,071,804.40	2,965,961.22	105,843.18	
Total	42,369,012.65	41,884,692.00	484,320.65	
EXPENSES.				
Maintenance of way and structures ..	6,505,864.07	7,503,380.57		997,516.50
Maintenance of equipment	3,024,725.18	3,048,666.81		23,941.63
Conducting transportation	13,932,064.43	12,761,566.89	1,170,497.54	
General expenses and taxes	4,514,849.64	5,107,222.74		592,373.10
Total	27,977,508.32	28,420,837.01		443,338.69
Net earnings	14,391,509.33	13,463,854.99	927,654.34	
Miles operated	6,512.88	6,347.88	165.00	
Earnings per mile	\$6,505.91	\$6,598.73		\$92.82
Expenses per mile	4,296.06	4,477.57		181.52
Net earnings per mile	2,209.86	2,121.16	\$88.70	
Percentage of expenses to earnings...	66.03	67.85		1.82

Revenue and expenditures for year.

REVENUE.

Earnings	\$42,369,012.65	
Income from other sources	174,682.67	
Total		\$42,543,695.32

EXPENDITURES.

Operating expenses and taxes	27,977,503.32	
Interest on funded debt	6,383,035.42	
Total		34,360,538.74
Surplus		8,183,156.58

General balance sheet.

ASSETS.

Cost of road and equipment	\$224,288,832.69
Bonds, stock, etc., of other companies	2,170,503.25
New England Trust Company, bonds and cash held in trust	633,184.51

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Farmers' Loan and Trust Company, trustee	\$409. 08
Depositories of renewal and improvement fund:	
United States Trust Company, New York.....	1, 535, 778. 82
Union Trust Company, New York.....	1, 478, 682. 30
Continental National Bank, Chicago	397, 612. 86
Insurance department	10, 000. 00
Fuel and material on hand.....	3, 217, 291. 29
Mortgage bonds held in treasury	4, 883, 000. 00
Stock of company held in treasury	4, 700. 00
Due from agents and conductors.....	712, 912. 24
Due from transportation companies.....	258, 564. 31
Miscellaneous balances	792, 174. 86
Due from United States Government	357, 362. 73
Deferred payments for common stock.....	2, 206, 650. 00
Cash on hand.....	13, 518, 176. 07
Total.....	\$256, 465, 835. 01

LIABILITIES.

Capital stock, common and preferred	100, 480, 200. 00
Funded debt.....	126, 941, 500. 00
Branch roads' sinking fund	633, 184. 51
Sinking fund, including convertible bonds	2, 100. 00
Renewal and improvement fund.....	3, 412, 073. 98
Replacement fund—cars	62, 850. 00
Pay rolls and vouchers.....	2, 909, 119. 78
Due transportation companies.....	370, 288. 53
Miscellaneous balances	1, 012, 524. 78
Dividends unclaimed	68, 085. 58
Interest coupons not presented	60, 561. 11
Interest accrued not yet payable	2, 887, 117. 50
Total.....	238, 839, 605. 77
Surplus.....	17, 626, 229. 24

CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY COMPANY.

This company has failed to submit a report of its operations in the form required by this Bureau for the year ending June 30, 1901.

By act of Congress approved May 15, 1856, there were granted by the United States, through the State of Iowa, to the Mississippi and Missouri Railroad Company, afterwards consolidated with the Chicago, Rock Island and Pacific, 1,261,181.60 acres of land. Davenport, Iowa, and the transfer grounds, Union Pacific Railway, are the land-grant termini. The records of the General Land Office show that to June 30, 1901, there had been patented to the company by the Government 608,981.68 acres of land.

The company has furnished this office with a copy of the report of its directors to the stockholders for the year ended March 31, 1901, from which the information and statements given herewith were obtained.

An extension mentioned in last year's report as in process of construction, from Mountain View, Okla., 40 miles west, has been completed and was opened for operation September 3, 1900.

The sales of lands during the company's fiscal year, to which title is perfect, amounted to 346.11 acres, for a consideration of \$6,458.23; quitclaims were made for 475 acres, for which \$11 were received, and rent and interest were collected amounting to \$1,060.26. The bills receivable at the end of the year amounted to \$11,107.39. The lands unsold to which title is undisputed, not including town lots, were 226.76 acres. Taxes paid on lands unsold amounted to \$394.21.

The company owns 3,127.79 miles of road, leases 352.73, and has trackage rights over 338.05 miles, making the total over which trains re operated 3,818.57 miles.

During the year 27.37 miles of new side tracks were constructed. Pile, trestle, and wooden span bridges, aggregating in length 3.95 miles, have been replaced by permanent structures or filled with earth, at a cost of \$398,922.95, which amount has been charged to operating expenses.

The equipment was improved by the addition of 34 locomotives, 10 passenger cars, 1,593 cars in the freight service, and 10 cars in the road and miscellaneous service, 2 combination passenger and baggage cars, and 2 baggage and express cars.

The following statements show the operations for the year and the company's financial condition on March 31, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	Mar. 31, 1901.	Mar. 31, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$6,400,014.08	\$5,541,036.60	\$858,977.48	.....
Freight.....	17,730,397.76	15,881,092.46	1,849,305.30	.....
Mail.....	642,889.00	684,433.60	8,455.40	.....
Express.....	435,134.50	409,200.00	25,934.50	.....
Miscellaneous.....	156,259.83	184,842.25	.....	\$28,582.42
Total.....	25,364,695.12	22,650,604.91	2,714,090.21	.....
EXPENSES.				
Maintenance of way and structures.....	4,597,294.25	3,875,448.34	721,845.91	.....
Maintenance of equipment.....	2,981,190.83	2,353,777.55	627,412.78	.....
Conducting transportation.....	8,055,310.71	7,263,188.49	792,127.22	.....
General expenses and taxes.....	1,581,297.45	1,490,041.50	41,255.95	.....
Total.....	17,165,092.74	14,982,450.88	2,182,641.86	.....
Net earnings.....	8,199,602.38	7,668,154.03	531,448.35	.....
Miles operated.....	3,818.57	3,646.67	171.90	.....
Earnings per mile.....	\$6,642.45	\$6,211.31	\$431.14	.....
Expenses per mile.....	4,495.16	4,108.53	386.63	.....
Net earnings per mile.....	2,147.29	2,102.78	44.51	.....
Percentage of expenses to earnings.....	67.67	66.15	1.52	.....

Revenue and expenditures for year.

REVENUE.

Earnings	\$25,364,695.12	
Income from loans and investments	693,879.01	
Receipts from the land department	7,500.00	
Total		\$26,066,074.13

EXPENDITURES.

Operating expenses and taxes	17,165,092.74	
Interest on bonded debt	2,911,980.00	
Rentals of leased lines	747,227.96	
Rentals and tolls, Missouri River bridge	144,756.43	
Dividends on capital stock	1,999,692.00	
Total		22,968,749.12
Surplus		3,097,325.01

General balance sheet.

ASSETS.

Cost of road and equipment	\$109,218,230.06	
Cost of track elevation in Chicago	1,378,114.68	
Cost of railroad bridge at Rock Island	964,128.96	
Capital stock and bonds of connecting roads	4,839,924.75	
Loans and other investments	1,404,553.23	
Advances made to Chicago, Rock Island and Texas Railway Company, as per agreement dated Jan- uary 1, 1893	1,956,961.43	
Advances made to Chicago, Rock Island and Mex- ico Railway Company, as per resolution of board of directors, December 7, 1900	20,000.00	
Chicago, Rock Island and Pacific Railway Company, capital stock on hand	78,600.00	
Chicago, Rock Island and Pacific Railroad Company, 6 per cent mortgage bonds on hand	400,000.00	
Fuel, material, etc., on hand	1,610,182.57	
Due from Post-Office Department	45,964.71	
Accounts receivable	1,530,205.18	
Cash and cash assets	7,358,994.87	
Total		\$130,805,860.44

LIABILITIES.

Capital stock issued	49,994,400.00	
Fractional scrip convertible into stock	5,600.00	
Six per cent mortgage bonds	12,500,000.00	
Four per cent general gold mortgage bonds	55,581,000.00	
Addition and improvement account	2,222,872.75	
Accounts payable	1,911,190.29	
Total		122,215,063.04
Surplus		8,590,797.40

CHICAGO, ST. PAUL, MINNEAPOLIS AND OMAHA RAILWAY COMPANY.

This company was formed on May 25, 1880, by the consolidation of the Chicago, St. Paul and Minneapolis and the North Wisconsin Railway companies. The company is now controlled by the Chicago and North-Western Railway Company, which owns a majority of the capital stock.

The company received, through grants of land to companies now belonging to it, 2,173,706.43 acres. Hudson and Superior, Wis., and branch, Superior and Bayfield, Wis., are the land-grant termini. The records of the General Land Office show that land had been patented to June 30, 1901, as follows:

	Acres.
St. Croix and Lake Superior	1,357,240.24
La Crosse and Milwaukee	813,706.71

and also show that 125,000 acres of railroad-indemnity lands belonging to the Chicago, St. Paul, Minneapolis and Omaha Railway Company, located in Wisconsin, have been restored to the public domain.

The company reports that there had been acquired by patent from the Government to date 2,163,082.79 acres, of which there had been disposed of for cash and on time contracts 1,920,403.76 acres. Contracts had been canceled for 27,950.64 acres, leaving the number of acres still owned by the company 270,629.67. The total cash receipts from all sales to date amounted to \$8,563,000.20, and there were outstanding, on account of time contracts, \$170,345.92. The cash receipts from the land department during the year amounted to \$107,601.60 and the expenses to \$26,562.35, the average price per acre during the year being \$2.52 and the average price asked now \$2.50.

The company owns 1,508.68 miles of road and leases 69.59 miles, making a total of 1,578.27 miles operated. There are 32.32 miles of double track and 474.81 miles of siding. Steel rails are laid on 1,428.85 miles of track, and iron on 58.83. The ballast consists of stone, 24.24 miles; gravel, 1,035.47; cinder, 93.60; earth, 332.23, and slag, 3.20 miles. There are 93.60 miles of barbed-wire and 327 miles of other fencing. During the year there were laid 7,707.72 tons of new steel rails, costing \$254,894.30, and 478,213 new cross-ties were placed under the track, at a cost of \$226,559.74.

The equipment at the end of the year consisted of 277 locomotives, and 224 cars in the passenger service, 10,388 in the freight service, and 180 road and miscellaneous cars. The additions and betterments to railway, etc., amounted to \$467,140.38.

The following statements show the results of the company's operations for the year and its general balance sheet for June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$2,495,118.85	\$2,394,589.52	\$100,578.88	.....
Freight	7,599,092.27	7,429,619.61	169,472.66	.....
Mall	281,986.88	227,411.56	4,575.30	.....
Express	168,470.84	167,803.38	667.46	.....
Miscellaneous	189,896.11	190,489.80	.....	\$693.69
Total	10,674,564.45	10,409,863.89	264,700.56	.....
EXPENSES.				
Maintenance of way and structures ..	1,853,366.33	2,045,456.12	.....	192,089.79
Maintenance of equipment	1,008,175.88	907,599.03	96,576.85	.....
Conducting transportation	3,853,661.28	3,248,939.09	102,722.19	.....
General expenses and taxes	659,134.56	608,461.82	50,672.74	.....
Total	6,867,338.05	6,810,456.06	56,881.99	.....
Net earnings	3,807,226.40	3,599,407.83	207,818.57	.....
Miles operated.....	1,578.27	1,557.30	20.97	.....
Earnings per mile	\$6,763.46	\$6,684.56	\$78.90	.....
Expenses per mile	4,351.18	4,373.25	.....	\$22.07
Net earnings per mile	2,412.28	2,311.31	100.97	.....
Percentage of expenses to earnings ..	64.33	65.42	.....	1.09

Revenue and expenditures for year.

REVENUE.	
Earnings	\$10,674,564.45
Dividends on stocks of other companies	97,205.00
Interest on bonds of other companies	5,990.00
Interest on miscellaneous investments	41,617.08
Receipts of the land department	107,601.60
Total	\$10,926,978.13
EXPENDITURES.	
Operating expenses and taxes	6,867,337.05
Interest on first-mortgage bonds	1,447,936.00
New construction	467,140.38
Improvement fund	500,000.00
Dividends, December, 1900, and June, 1901	1,715,726.00
Expenses of the land department	26,562.35
Total	11,024,702.78
Deficit	97,724.65

General balance sheet.

ASSETS.	
Cost of road, fixtures, and equipment.....	\$56,568,346.92
Fuel, material, and stores on hand	888,779.63
Cash on hand	966,098.11
Company's stocks and bonds owned by company ...	5,844,194.98

Other stocks and bonds.....	\$2,040,450.00	
Bills receivable	1,294.62	
Accounts receivable	415,802.22	
Due from United States Post-Office Department	58,565.11	
Total		\$66,783,531.59

LIABILITIES.

First-mortgage bonds	27,255,800.00	
Interest on same due and accrued, including coupons due July 1, 1901.....	86,152.50	
Interest on same, accrued, not due	188,338.34	
Dividends unpaid	394,144.50	
Pay rolls and vouchers	844,977.13	
Due other companies, account traffic.....	32,529.07	
Due other companies, account leases.....	11,523.29	
Improvement fund	328,301.96	
Accrued taxes not yet due	287,602.79	
Equipment fund	53,834.27	
Capital stock.....	34,050,126.62	
Total		63,511,330.47
Surplus.....		3,272,151.12

CHOCTAW, OKLAHOMA AND GULF RAILROAD COMPANY.

This company was chartered February, 1888, and now comprises the Choctaw and Memphis Railroad (formerly Little Rock and Memphis Railroad Company).

The extension of the Choctaw and Memphis Railroad from Indian Territory-Arkansas line to Little Rock, Ark., was completed on or about December 1, 1899, when the entire Choctaw and Memphis line from Hopefield, Ark., to the Indian Territory-Arkansas line was leased by the Choctaw, Oklahoma and Gulf Railroad Company for a term of ninety-five years on a basis of guaranteed interest on its bonds and 2 per cent on preferred stock.

At a special meeting of the boards of directors of both companies, held in Philadelphia, Pa., June 27, 1900, arrangements were made, under provisions of the act of Congress approved March 28, 1900, to issue \$2,000,000 preferred stock and \$2,250,000 common stock additional to that outstanding for the purchase of the Choctaw and Memphis Railroad and franchises, additional equipment, and for betterments and improvements to the property. This arrangement was ratified and the purchase consummated on the above date.

By the acts of Congress approved February 9, 1853, and July 28, 1866, there were granted to the Memphis and Little Rock Railroad Company, through the State of Arkansas, 438,646 acres of land. The Mississippi River, opposite Memphis, and Argenta, opposite Little Rock, are the land-grant termini. The records of the General Land Office show that

to June 30, 1901, there had been patented to the company 184,657.38 acres of land.

The receipts from the land department during the year amounted to \$9,444.71 and the expenses to \$4,908.88, and there are outstanding on account of time sales \$2,686.60. There were sold during the year 3,001 acres of land, and the company still owns 56,221 acres.

The main line of the road extends from Hopefield to Weatherford, Okla., a distance of 621.34 miles. There are 32.65 miles of branches and 105.56 miles of sidings. The track is entirely laid with steel rails of 65 pounds weight.

The assessed valuation of the roadway, bridges, buildings, etc., on June 30, 1900, was \$2,921,380.28, and of the rolling stock and equipment \$803,804.97. It is not given in the report of this year.

The following statements show the operations of the company for the year and its general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$881,376.17	\$421,999.81	\$459,376.36	.....
Freight.....	2,874,808.55	1,503,355.84	1,370,952.71	.....
Mail.....	48,789.81	36,452.82	12,336.99	.....
Express.....	41,547.92	20,031.36	21,516.56	.....
Miscellaneous.....	37,840.85	62,041.55	.....	\$24,200.70
Total.....	3,883,862.80	2,043,871.38	1,839,991.42	.....
EXPENSES.				
Maintenance of way and structures..	690,313.29	404,376.89	275,936.40	.....
Maintenance of equipment.....	270,258.12	161,562.86	108,695.26	.....
Conducting transportation.....	1,043,819.31	526,394.91	516,924.40	.....
General expenses.....	148,971.96	95,612.64	53,359.32	.....
Total.....	2,142,862.68	1,187,946.80	954,915.88	.....
Net earnings.....	1,741,000.12	855,924.58	885,075.54	.....
Miles operated.....	653.99	574.73	79.26	.....
Earnings per mile.....	\$5,938.72	\$3,566.23	\$2,382.49	.....
Expenses per mile.....	3,276.60	2,066.96	1,209.64	.....
Net earnings per mile.....	2,662.12	1,489.27	1,172.85	.....
Percentage of expenses to earnings...	55.17	58.12	.....	2.96

Revenue and expenditures for year.

REVENUE.	
Earnings.....	\$3,883,862.80
Profits on miscellaneous investments.....	114,893.15
Total.....	\$3,998,755.95
EXPENDITURES.	
Operating expenses.....	2,142,862.68
Interest on first-mortgage bonds.....	449,572.08
Interest on car-trust bonds.....	6,719.19

Interest on interest-bearing current liabilities	\$3, 201. 17
Rents paid for lease of road	24, 999. 99
Permanent improvements.....	75, 000. 00
Additions and betterments to mines	80, 730. 36
New equipment, reserve fund	40, 000. 00
Dividends, 4 per cent on common stock	234, 407. 00
Dividends, 5 per cent on preferred stock	299, 098. 75
Taxes	77, 842. 87
Premium on bonds redeemed	25, 600. 00
Total	\$3, 460, 034. 09
Surplus	538, 721. 86

General balance sheet.

ASSETS.

Cost of road and fixtures.....	\$3, 851, 371. 42
Cost of equipment	1, 639, 966. 65
Cost of car trust	1, 355, 958. 00
Cost of franchises and property.....	16, 723, 251. 35
Fuel, material, and stores on hand.....	225, 623. 84
Cash on hand	410, 172. 68
Stocks and bonds.....	2, 975. 72
Cash assets.....	92, 141. 41
Miscellaneous investments	1, 000. 00
Bills receivable.....	67, 203. 58
Accounts receivable from agents and conductors.....	50, 586. 77
Same from solvent companies and individuals.....	350, 730. 18
Due from other companies on account of traffic.....	32, 848. 20
Total	\$24, 803, 829. 80

LIABILITIES.

First-mortgage bonds	9, 055, 000. 00
Interest on same due and accrued.....	6, 096. 87
Interest on same accrued not due.....	228, 250. 01
Car trust.....	1, 323, 516. 00
Interest on same accrued not due.....	3, 125. 01
Bills payable.....	440, 000. 00
Pay rolls and vouchers.....	679, 858. 73
Due other companies on account of leases	12, 499. 99
Miscellaneous	8, 559. 70
Reserve fund for hospital	6, 522. 13
Reserve fund for equipment.....	80, 000. 00
Capital stock.....	12, 000, 000. 00
Total	23, 843, 428. 44
Surplus	960, 401. 36

DUBUQUE AND SIOUX CITY RAILROAD COMPANY.

This company was organized in 1860 as the successor of the Dubuque and Pacific Railroad Company. By consolidation in 1888 the property of the Iowa Falls and Sioux City Railroad Company was acquired.

A controlling interest in the company is owned by the Illinois Central Railroad Company, and the road is now operated by that company under lease from January 1, 1895, to August 1, 1951.

By act of July 15, 1856, there were granted to the Dubuque and Pacific Railroad Company, through the State of Iowa, 1,226,163 acres of land. Dubuque, Iowa, and Sioux City, Iowa, are the land-grant termini. The records of the General Land Office show that to June 30, 1901, there had been patented to this company 605,488.58 acres, and to the Iowa Falls and Sioux City Railroad Company 683,023.80 acres.

The operating company furnishes a report of the main line from Dubuque to Sioux City, Iowa, that being the portion of the road which received a land grant. This report gives no details concerning the land department for the reason that the lands had all been disposed of before the present operating company took possession of the railroad or the records and there is no means of information as to the past transactions of the company's land department. The bills outstanding on account of time sales amounted, on July 1, 1901, to \$810.

The report gives no details as to the mileage or characteristics of the road. The additions and betterments to railway amounted to \$720,828.04. The rolling stock owned by the company consists of 55 locomotives, 45 cars in the passenger and 206 in the freight departments, respectively, there having been no additions during the year.

The following statements show the operations of the year and the balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$699,245.14	\$616,560.06	\$82,685.08	
Freight	1,797,144.83	1,901,082.60		\$103,937.77
Mail	71,143.88	71,138.89	4.99	
Express	52,662.96	47,090.32	5,572.64	
Miscellaneous	50,448.89	52,557.06		2,108.66
Total	2,670,645.20	2,688,428.92		17,783.72
EXPENSES.				
Maintenance of way	450,118.12	496,896.17		46,778.05
Motive power	269,461.00	231,173.65	38,287.35	
Maintenance of cars	887,841.23	844,831.94	43,009.29	
General expenses and taxes	119,963.60	135,919.71		15,956.11
Total	1,727,373.95	1,708,821.47	18,552.48	
Net earnings	943,271.25	979,607.45		36,336.20
Miles operated	326.58	326.58		
Earnings per mile	\$8,177.60	\$8,232.07		\$54.47
Expenses per mile	5,289.28	5,232.47	\$56.81	
Net earnings per mile	2,888.32	2,999.60		111.28
Percentage of expenses to earnings	64.68	63.56	1.12	

Revenue and expenditures for year.

REVENUE.

Earnings	\$2, 670, 645. 20	
Interest on bonds of other companies.....	40, 293. 75	
Total.....		\$2, 710, 938. 95

EXPENDITURES.

Operating expenses.....	1, 741, 094. 62	
Interest on first-mortgage bonds.....	413, 000. 00	
Sinking-fund requirements.....	46, 733. 60	
New construction	262, 330. 30	
Dividends, December, 1900, and June, 1901.....	329, 988. 00	
Net losses on branch lines	901, 135. 32	
Total.....		3, 694, 281. 84
Deficit.....		983, 332. 80

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment.....	\$27, 552, 323. 84	
Land contracts.....	810. 00	
Stocks and bonds.....	678, 005. 80	
Bills receivable	243. 82	
Accounts receivable.....	183, 867. 17	
Total.....		\$28, 415, 250. 63

LIABILITIES.

First-mortgage bonds.....	17, 155, 000. 00	
Interest on same, due and accrued.....	3, 762. 50	
Interest on same accrued, not due.....	152, 916. 67	
Dividends unpaid.....	2, 265. 05	
Pay rolls, vouchers, and accounts.....	713. 49	
Capital stock.....	10, 999, 600. 00	
Total.....		28, 314, 257. 71
Surplus.....		100, 992. 92

MISSOURI, KANSAS AND TEXAS RAILWAY COMPANY.

This company was organized April 7, 1870, by the consolidation of the Union Pacific, Southern Branch, chartered September 20, 1865; the Tebo and Neosho, chartered June 18, 1870; the Labette and Sedalia, chartered May 7, 1878, and the Neosho Valley and Holden, whose road was opened in 1871.

The St. Louis and Santa Fe Railroad, from Holden, Mo., to Paola, Kans., 53.52 miles, was acquired by purchase on foreclosure April 29, 1872, and was leased to the Missouri Pacific Railway Company. The Hannibal and Central Missouri, from Hannibal to Moberly, Mo., 72.50 miles, was bought in 1873.

From 1880 to 1888 the road and property of this company were leased to the Missouri Pacific Railway Company, and in the latter year receivers were appointed. The company was reorganized without foreclosure in 1890, and in 1891 the receivers were discharged and the property delivered to the company on July 1 of that year.

By the act of Congress approved March 3, 1863, there were granted to the Union Pacific, Southern Branch, through the State of Kansas, 1,520,000 acres of land. Junction City, Kans., and the southern boundary of Kansas, and Fort Smith, when the Indian title is extinguished, are the land-grant termini.

The records of the General Land Office show that to June 30, 1901, there had been patented to the company 705,520.92 acres of land in the State of Kansas. The records of the General Land Office also show that 5,700 acres of railroad indemnity lands, located in Kansas, have been restored to the public domain.

The company owns 2,232.62 miles of road and leases 246.95 miles, making the total length of road operated 2,479.57 miles; there are also 427 miles of sidetrack. With the exception of 37.27 miles, the entire track is laid with steel rails of from 52 to 75 pounds per yard in weight. There are about 3,000 miles of fencing, nearly all wire.

During the year 7,240.8 tons of new steel rails were laid, costing \$200,419.81, and 997,793 first-class and 62,459 second-class oak cross-ties were placed in the track, at a total cost of \$426,672.09.

The rolling stock on June 30, 1901, consisted of 294 locomotives, all of which are equipped with air brakes; 198 cars in the passenger service, all equipped with air brakes and automatic couplers; 10,385 in the freight service, of which 8,271 are fitted with air brakes and all with automatic couplers, and 1,088 cars in the road and miscellaneous service, of which 117 are fitted with air brakes and 177 with automatic couplers.

The additions and betterments to railway and rolling stock, charged to operating expenses, amounted to \$1,159,042.67 and to rolling stock, charged to new equipment account, to \$244,348.50.

The express business is transacted by the American Express Company. Pullman sleeping cars are run over the line on a mileage basis. The telegraph service is performed by the Western Union Telegraph Company. Sundry contracts for the use of tracks have been entered into. The following statements show the operations for the year and the general balance sheet on June 30, 1901:

RAILROAD ACCOUNTS.

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Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$2,658,244.56	\$2,152,768.30	\$505,476.26	
Freight.....	12,097,617.97	9,886,995.07	2,210,622.90	
Mail.....	322,034.93	320,010.06	2,024.87	
Express.....	251,567.34	199,044.39	52,542.95	
Miscellaneous.....	73,698.31	67,694.07	5,904.24	
Total.....	15,403,083.11	12,626,511.89	2,776,571.22	
EXPENSES.				
Maintenance of way and structures..	2,815,606.72	1,452,452.48	1,363,154.24	
Maintenance of equipment.....	1,361,581.35	1,096,199.08	265,382.27	
Conducting transportation.....	5,922,286.37	5,256,907.76	665,378.61	
General expenses.....	724,539.18	666,571.10	57,968.08	
Total.....	10,824,013.62	8,474,130.42	2,349,883.20	
Net earnings.....	4,579,069.49	4,152,381.47	426,688.02	
Miles operated.....	2,479.57	2,222.21	257.36	
Earnings per mile.....	\$6,211.99	\$6,681.96	\$530.03	
Expenses per mile.....	4,365.28	3,813.38	551.90	
Net earnings per mile.....	1,846.71	1,868.58		\$21.87
Percentage of expenses to earnings..	70.27	67.11	3.16	

Revenue and expenditures for year.

REVENUE.	
Earnings.....	\$15,403,083.11
Dividends on stocks of other companies.....	5,500.00
Miscellaneous.....	32,636.89
Total.....	\$15,441,220.00
EXPENDITURES.	
Operating expenses.....	10,824,013.62
Interest on first-mortgage bonds.....	2,293,015.13
Interest on other funded debt.....	825,000.00
Interest on bonds guaranteed in lieu of rental.....	60,000.00
Rental of tracks and terminals.....	329,141.90
Taxes.....	310,133.17
Total.....	14,641,303.82
Surplus.....	799,916.18

General balance sheet.

ASSETS.	
Cost of road and fixtures.....	\$149,341,765.40
New equipment.....	2,168,611.80
Cost of real estate.....	44,891.21
Fuel, material, and stores on hand.....	901,493.02
Cash on hand.....	1,275,384.34
Stocks and bonds owned by company.....	472,400.96
Accounts receivable.....	874,678.70
Total.....	\$155,079,225.43

LIABILITIES.

First mortgage bonds.....	\$55,794,000.00
Interest on same due and not called for.....	165,065.00
Interest on same accrued not due.....	330,854.97
Other funded debt.....	20,500,000.00
Interest on same due and unpaid.....	17,815.00
Interest on same accrued not due.....	369,583.34
Accounts payable, vouchers.....	992,860.43
Pay rolls.....	591,941.34
Due other companies on account traffic.....	133,953.78
Streets Western Stable Car Line.....	218,058.32
Equipment notes.....	912,256.88
Taxes accrued not due.....	137,783.51
Sherman, Shreveport and Southern Railway im- provement fund.....	191,006.93
Rail replacement fund.....	375,565.23
Sundry accounts.....	14,138.85
Capital stock.....	71,749,200.00
Total.....	\$152,494,083.58
Surplus.....	2,585,141.85

MISSOURI PACIFIC RAILWAY COMPANY.

This company was organized under the general laws of the States of Missouri, Kansas, and Nebraska by articles of agreement and consolidation filed in the office of the secretary of the State of Missouri August 12, 1880, and with the secretary of the State of Kansas October 8, 1880. It is the successor of the Pacific Railroad Company of Missouri, which was sold under foreclosure in 1876 and the property conveyed to the present company.

In 1881 this company acquired the St. Louis, Iron Mountain and Southern Railway, issuing three shares of its own stock for every four shares of the Iron Mountain. The company also leased the Central Branch Union Pacific Railroad and the Little Rock and Fort Smith Railway, but these roads are reported independently.

This company has no land department of its own. A grant of 1,161,244 acres of land was made to the Pacific Railroad Company to aid in the construction of the Southwest Branch. This branch was afterwards taken possession of by the State and sold to the South Pacific Railroad Company, which in turn sold to the Atlantic and Pacific, and on September 8, 1876, it was again sold to the St. Louis and San Francisco Railway Company. The land-grant termini are St. Louis and Pacific, Mo.

The company reports on 1,259.98 miles of road owned and 252.95 miles leased, making the total length operated 1,512.93 miles. There are 33.10 miles of double track and 455.24 miles of sidings. All but 19.15 miles of track is laid with steel rails, and there are 2,207.65 miles of fencing. During the year 3,677.24 tons of new steel rails were laid, at a cost of \$161,262.48, and 840,764 new oak cross-ties were placed

under the track, costing \$379,575.38. Additions and betterments are charged to operating expenses, and no separate improvement account is kept.

The rolling stock on June 30, 1901, consisting of 363 locomotives, 363 cars in the passenger service, 17,944 in the freight service, and 2,088 road and miscellaneous cars.

The assessed valuation of roadway, bridges, track, buildings, etc., for taxation was \$12,680,354.49, and of all rolling stock and equipment, \$1,386,334.03.

The following statements show the operations of the company for the year and the general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$2,137,525.96	\$2,048,408.69	\$89,117.27	
Freight	8,371,176.14	7,903,988.84	567,237.30	
Mail	534,224.95	534,200.96	23.99	
Express	201,627.11	179,046.63	22,580.48	
Miscellaneous	1,383,383.74	1,176,236.86	207,146.88	
Total	12,627,937.90	11,741,831.98	886,105.92	
EXPENSES.				
Maintenance of way and structures ..	1,637,860.16	1,538,427.80	99,432.36	
Maintenance of equipment	1,850,499.04	1,843,064.33	7,434.71	
Conducting transportation	4,420,998.80	4,552,655.70		\$131,667.40
General expenses	286,931.64	222,202.88	64,728.76	
Total	8,196,289.14	8,156,350.71	39,938.43	
Net earnings	4,431,648.76	3,585,481.27	846,167.49	
Miles operated	1,512.98	1,512.98		
Earnings per mile	\$3,346.67	\$7,760.99	\$566.68	
Expenses per mile	5,417.49	5,391.09	26.40	
Net earnings per mile	2,929.18	2,369.90	559.28	
Percentage of expenses to earnings ..	64.90	69.46		4.56

Revenue and expenditures for year.

REVENUE.	
Earnings	\$12,641,065.31
Dividends on stocks of other companies	1,874,216.54
Interest on bonds of other companies	23,375.00
Profits on miscellaneous investments	491,553.51
Branch lines, surplus	983,410.17
Total	\$16,013,620.53
EXPENDITURES.	
Operating expenses, rentals, and taxes	8,976,655.03
Interest on funded debt	3,488,454.15
Sundry amounts	136,554.20
Total	12,601,663.38
Surplus	3,411,957.15

LIABILITIES.

First mortgage bonds.....	\$55,794,000.00
Interest on same due and not called for.....	165,065.00
Interest on same accrued not due.....	330,854.97
Other funded debt.....	20,500,000.00
Interest on same due and unpaid.....	17,815.00
Interest on same accrued not due.....	369,583.34
Accounts payable, vouchers.....	992,860.43
Pay rolls.....	591,941.34
Due other companies on account traffic.....	133,953.78
Streets Western Stable Car Line.....	218,058.32
Equipment notes.....	912,256.88
Taxes accrued not due.....	137,783.51
Sherman, Shreveport and Southern Railway im- provement fund.....	191,006.93
Rail replacement fund.....	375,565.23
Sundry accounts.....	14,138.85
Capital stock.....	71,749,200.00
Total.....	<u>\$152,494,083.58</u>
Surplus.....	2,585,141.85

MISSOURI PACIFIC RAILWAY COMPANY.

This company was organized under the general laws of the States of Missouri, Kansas, and Nebraska by articles of agreement and consolidation filed in the office of the secretary of the State of Missouri August 12, 1880, and with the secretary of the State of Kansas October 8, 1880. It is the successor of the Pacific Railroad Company of Missouri, which was sold under foreclosure in 1876 and the property conveyed to the present company.

In 1881 this company acquired the St. Louis, Iron Mountain and Southern Railway, issuing three shares of its own stock for every four shares of the Iron Mountain. The company also leased the Central Branch Union Pacific Railroad and the Little Rock and Fort Smith Railway, but these roads are reported independently.

This company has no land department of its own. A grant of 1,161,244 acres of land was made to the Pacific Railroad Company to aid in the construction of the Southwest Branch. This branch was afterwards taken possession of by the State and sold to the South Pacific Railroad Company, which in turn sold to the Atlantic and Pacific, and on September 8, 1876, it was again sold to the St. Louis and San Francisco Railway Company. The land-grant termini are St. Louis and Pacific, Mo.

The company reports on 1,259.98 miles of road owned and 252.95 miles leased, making the total length operated 1,512.93 miles. There are 33.10 miles of double track and 455.24 miles of sidings. All but 19.15 miles of track is laid with steel rails, and there are 2,207.65 miles of fencing. During the year 3,677.24 tons of new steel rails were laid, at a cost of \$161,262.48, and 840,764 new oak cross-ties were placed

under the track, costing \$379,575.38. Additions and betterments are charged to operating expenses, and no separate improvement account is kept.

The rolling stock on June 30, 1901, consisting of 363 locomotives, 363 cars in the passenger service, 17,944 in the freight service, and 2,088 road and miscellaneous cars.

The assessed valuation of roadway, bridges, track, buildings, etc., for taxation was \$12,680,354.49, and of all rolling stock and equipment, \$1,386,334.03.

The following statements show the operations of the company for the year and the general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$2,137,525.96	\$2,048,408.69	\$89,117.27	
Freight.....	8,371,176.14	7,803,938.84	567,237.30	
Mail.....	534,224.95	534,200.96	23.99	
Expres.....	201,627.11	179,046.63	22,580.48	
Miscellaneous.....	1,383,383.74	1,176,236.96	207,146.88	
Total.....	12,627,937.90	11,741,831.96	886,105.92	
EXPENSES.				
Maintenance of way and structures..	1,637,860.16	1,538,427.80	99,432.36	
Maintenance of equipment.....	1,850,499.04	1,843,064.33	7,434.71	
Conducting transportation.....	4,420,998.30	4,552,655.70		\$131,657.40
General expenses.....	286,931.64	222,202.88	64,728.76	
Total.....	8,196,289.14	8,156,350.71	39,938.43	
Net earnings.....	4,431,648.76	3,585,481.27	846,167.49	
Miles operated.....	1,512.98	1,512.93		
Earnings per mile.....	\$3,346.67	\$7,760.99	\$565.68	
Expenses per mile.....	5,417.49	5,391.09	26.40	
Net earnings per mile.....	2,929.18	2,369.90	559.28	
Percentage of expenses to earnings...	64.90	69.46		4.56

Revenue and expenditures for year.

REVENUE.	
Earnings.....	\$12,641,065.31
Dividends on stocks of other companies.....	1,874,216.54
Interest on bonds of other companies.....	23,375.00
Profits on miscellaneous investments.....	491,553.51
Branch lines, surplus.....	983,410.17
Total.....	\$16,013,620.53
EXPENDITURES.	
Operating expenses, rentals, and taxes.....	8,976,655.03
Interest on funded debt.....	3,488,454.15
Sundry amounts.....	136,554.20
Total.....	12,601,663.38
Surplus.....	3,411,957.15

General balance sheet

ASSETS.

Cost of road, fixtures, and equipment.....	\$55, 676, 311. 02
Cost of real estate	995, 074. 33
Fuel, material, and stores on hand	1, 376, 904. 64
Cash on hand.....	6, 748, 589. 57
Stocks, bonds, and miscellaneous investments.....	63, 082, 619. 82
Accounts receivable	2, 337, 318. 08
	<hr/>
Total.....	\$130, 216, 817. 46

LIABILITIES.

Funded debt.....	54, 012, 000. 00
Interest on same due and unpaid.....	163, 557. 50
Interest on same accrued not due	812, 617. 69
Bills and accounts payable.....	3, 724, 325. 55
Sundry amounts	885, 974. 30
Capital stock.....	66, 560, 765. 00
	<hr/>
Total.....	126, 159, 240. 04
Surplus.....	4, 057, 577. 42

NORTHERN PACIFIC RAILWAY COMPANY.

This company was chartered originally March 15, 1870, as the Superior and St. Croix Railroad Company, and changed its name in July, 1896, by resolution of stockholders and directors, to Northern Pacific Railway Company. This company succeeded to the rights, property, and franchises of the Northern Pacific Railroad Company, taking possession of the property on September 1, 1896.

The records of the General Land Office show that 8,946,400 acres of railroad indemnity lands, located in Wisconsin, Minnesota, Dakota, Montana, Idaho, Washington, and Oregon, have been restored to the public domain, and that by a decision of the Commissioner, dated September 13, 1886, affirmed by the Secretary of the Interior, 32,400 acres of the grant located in Washington have also been restored. Also, by order of January 22, 1896, there were restored in the State of Washington some 278,358 acres. By decision of July 9, 1896, the Secretary of the Interior established a new western terminal for the portion of the Northern Pacific Railroad grant declared forfeited by the act of September 29, 1890, which had the effect of adding to the lands already held to have been forfeited about 53,120 acres, which were restored to entry under instructions of August 20, 1896. By decision of August 27, 1896, the final eastern terminus of said grant was fixed at Duluth, Minn., which decision had the effect of restoring to entry all lands previously withdrawn for the company lying east of the terminal established pursuant thereto and approved by the

Secretary December 24, 1896. The lands affected lie within the State of Minnesota and the State of Wisconsin, but the quantity has not been ascertained.

The records of the General Land Office show that to June 30, 1901, there had been patented to this company in the States of—

	Acres.
Minnesota	1, 773, 036. 81
North Dakota	8, 571, 895. 70
Oregon	1, 158, 482. 25
Washington	7, 272, 832. 92
Idaho	480, 283. 60
Montana	5, 570, 107. 38
Wisconsin	2, 630. 80
Total	24, 829, 259. 28

All the lands unsold of the Northern Pacific Railroad Company lying west of the Missouri River were purchased by this company under the reorganization, the aggregate price paid therefor being \$5,605,200.

This company reports that it received during the year ended June 30, 1901, by United States patent, 798,053.32 acres of land. This number of acres, the number acquired by cancellation of contracts, 106,841.85 acres, and 8,902.20 acres acquired by patent from the State of Minnesota, make a total of 3,232,768.02 acres received since September 1, 1896, the date of reorganization. There had been disposed of during the year, 2,757,429.13 acres. The total cash receipts from all sales from September 1, 1896, to June 30, 1901, amounted to \$20,170,403.31, and there was outstanding on the latter date, on account of time sales, principal and interest, \$4,025,090.15.

There are 5,085.68 miles of track owned and 198.45 miles leased, making the total operated 5,284.13 miles; in addition there are 61.49 miles of double track and 1,070.80 miles of sidings. There are 2,478.84 miles of fencing. During the year 27,339.50 tons of new steel rails were laid at a cost of \$861,127.75, and 2,134,284 new cross-ties were placed in the track at a cost of \$616,816.81. The additions and betterments to railway, etc., charged to income account, amount to \$2,011,285, but show a credit to construction account of \$475,904.59. The equipment at the close of the year consisted of 704 locomotives, 622 cars in the passenger department, 26,999 in the freight, and 2,760 in the miscellaneous departments, respectively.

On June 16, 1900, the St. Paul and Duluth Railroad Company sold and transferred to the Northern Pacific Railway Company all of its property and assets of every nature for the sum of \$2,795,904.59. It has since been incorporated with the Northern Pacific Railway Company and its accounts are embodied in the report of the latter.

The following statements show the operations for the year ended June 30, 1901, and the company's balance sheet on that date:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$7,247,000.22	\$6,219,996.08	\$1,027,004.14	
Freight.....	28,481,719.18	22,140,179.78	1,341,539.35	
Mail.....	727,657.74	686,845.91	30,809.83	
Express.....	506,130.77	447,101.46	59,029.31	
Miscellaneous.....	598,481.72	617,192.49	81,289.23	
Total.....	32,560,983.56	30,021,817.72	2,539,665.86	
EXPENSES.				
Maintenance of way and structures.....	5,249,067.96	4,374,066.55	374,961.49	
Maintenance of equipment.....	2,456,823.11	2,232,999.63	223,823.48	
Conducting transportation.....	8,061,716.65	6,514,490.45	1,547,226.20	
General expenses and taxes.....	1,798,887.88	1,024,241.77	169,646.06	
Total.....	17,560,495.57	15,245,218.40	2,315,277.17	
Net earnings.....	15,000,488.01	14,776,099.32	224,388.69	
Miles operated.....	5,284.18	5,036.99	247.14	
Earnings per mile.....	\$6,162.08	\$5,900.17	\$201.86	
Expenses per mile.....	8,323.25	8,026.65	296.60	
Net earnings per mile.....	2,838.78	2,833.52		\$94.74
Percentage of expenses to earnings.....	53.98	50.78	3.15	

Revenue and expenditures for year.

REVENUE.

Earnings.....	\$32,560,983.58
Dividends on stocks of other companies.....	342,021.18
Interest on bonds of other companies.....	132,761.20
Profits on miscellaneous investments.....	14,441.94
Interest on miscellaneous investments and cash balances.....	206,674.05
Miscellaneous receipts.....	14,638.53
Rental of leased lines.....	33,250.00
Balance June 30, 1900.....	2,504,804.85
Total.....	\$35,809,575.33

EXPENDITURES.

Operating expenses, taxes and rentals.....	17,633,665.69
Interest on mortgage bonds.....	6,395,681.25
Interest on bonds of other companies, guaranteed.....	61,520.00
New construction and equipment.....	2,011,285.00
Dividends.....	6,200,000.00
Total.....	\$2,302,151.94
Surplus.....	3,507,423.39

General balance sheet.

ASSETS.

Cost of road and fixtures.....	\$290,523,773.89
Cost of equipment.....	20,111,877.08
Land contracts, land cash, etc.....	3,749,675.45
Fuel, material, and stores on hand	2,681,705.96
Cash on hand.....	10,881,199.73
Company's stocks and bonds.....	7,204,201.41
Other stocks and bonds.....	3,110,043.56
Miscellaneous investments	1,396,187.54
Insurance fund assets.....	575,086.68
Sinking fund in hands of trustees.....	952,943.74
Bills receivable	38,613.54
Accounts receivable	1,201,944.62
Due from other companies on account of traffic...	702,370.90
United States unsettled accounts	315,770.98
Total	\$343,445,395.08

LIABILITIES.

Mortgage bonds.....	172,638,000.00
Interest on same, due and accrued.....	1,034,678.75
Interest on same accrued, not due	520,821.67
Dividends unpaid	1,552,043.50
Bills payable, car-trust notes.....	287,789.28
Accounts payable	316,410.08
Pay rolls and vouchers	3,442,258.01
Due other companies on account of traffic.....	366,446.41
Taxes accrued, not due	579,162.71
Reserve funds.....	347,945.47
Insurance fund.....	575,086.68
Liquidation fund.....	277,329.13
Reserved for dividends on preferred stock.....	3,000,000.00
Capital stock.....	155,000,000.00
Total	339,937,971.69
Surplus.....	3,507,423.39

OREGON AND CALIFORNIA RAILROAD COMPANY.

This company was chartered March 17, 1870, as the successor of the Oregon Central Railroad Company of Salem. The road is leased to the Southern Pacific Company for thirty-four years from August 1, 1893, at an annual rental of \$5,000. Under the lease the net earnings or income, after payment of all fixed charges, is applied to payment of interest on bonded indebtedness of lessor company, which company is entitled to residue of such net earnings up to 7 per cent on preferred and 6 per cent on common stock, any excess of such amounts to be retained by lessee. If excess of net earnings or income is insufficient to pay the interest, it is optional with lessee to make good the defi-

ciency and reimburse itself out of subsequent earnings. The lessee guarantees the payment, principal and interest, of the bonds already issued or to be issued under mortgage of July 1, 1887, from lessor company to Union Trust Company of New York.

By acts of Congress approved July 25, 1866, and May 4, 1870, there were granted by the United States, to aid in the construction of this road, 4,700,000 acres of land in the State of Oregon. Roseville Junction, Cal., and Portland, Oreg., are the land-grant termini. The records of the General Land Office show that to June 30, 1901, there had been patented to the company 2,576,754.47 acres. The records of the General Land Office also show that to the same date 810,880 acres of the grant of July 25, 1866, and the whole of the grant of May 4, 1870, had been forfeited by the company, and that 1,800,000 acres of railroad indemnity lands located in Oregon had been restored to the public domain.

The company reports that to June 30, 1901, it had received by United States patent 2,795,567.64 acres of land. The total cash receipts from all sales to date amounted to \$1,852,756.51, and there were outstanding on account of time sales \$1,808,935.66. The receipts for the year were \$310,027.80 and the expenses \$72,713.77. The average price per acre now asked for land is \$3.50.

The main line extends from Portland to California State line, 367.22 miles, and there are 304.49 miles of branch lines (including 1.11 miles leased). There are also 93.34 miles of sidings. The track is laid with steel rails for 695.55 miles, with iron for 69.50 miles. There are 399.14 miles of fencing. During the year 269,419 new cross-ties were placed in the track, at a cost of \$102,106.66, and 126.54 tons of steel rails, costing \$3,249.81. The expenditures for additions and betterments to railway, etc., charged to income account, amounted to \$140,793.26, and additions and betterments to rolling stock gave a credit to operating expenses of \$1,436.92.

The rolling stock at the end of the year consisted of 45 locomotives, and 62 cars in the passenger, 907 in the freight, and 52 in the miscellaneous departments, respectively. The assessed valuation of roadway, bridges, tracks, buildings, etc., for taxation is \$25,573,627, and of rolling stock and equipment \$286,030. The following statements show the operations for the year and the company's general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$1,248,365.17	\$1,140,275.82	\$108,089.85	
Freight	1,497,064.06	1,282,365.83	214,718.25	
Mail	112,498.41	110,163.36	2,330.05	
Express	42,824.02	89,845.81	2,978.21	
Miscellaneous	29,322.18	40,941.82		\$11,619.14
Total	2,980,068.86	2,618,591.64	361,497.22	
EXPENSES.				
Maintenance of way and structures ..	640,114.99	682,687.89		42,572.90
Maintenance of equipment	308,006.10	247,834.96	60,171.14	
Conducting transportation	1,119,286.90	954,369.16	164,897.74	
General expenses and taxes	166,041.26	136,695.46	29,345.80	
Total	2,233,429.25	2,021,587.47	211,841.78	
Net earnings	696,659.61	592,004.17	104,655.44	
Miles operated	671.71	655.76	15.95	
Earnings per mile	\$4,362.13	\$3,985.29	\$376.84	
Expenses per mile	3,324.99	3,082.80	242.19	
Net earnings per mile	1,037.14	902.49	134.65	
Percentage of expenses to earnings ..	76.22	77.35		1.13

Revenue and expenditures for year.

REVENUE.	
Earnings	\$2,930,088.86
Receipts of the land department	299,925.88
Interest on sinking fund of company	1,481.84
Rental, lease of road	5,833.33
Land sales and leases	16,479.47
Total	\$3,253,809.38
EXPENDITURES.	
Operating expenses and taxes	2,233,429.25
Interest on first-mortgage bonds	981,631.25
Interest on other debt	166,602.16
Rentals	62,866.70
New construction	117,854.82
New equipment	21,501.52
Expenses of the land department	72,713.77
Sundry expenses	3,426.89
Total	3,660,026.36
Deficit	406,218.98

General balance sheet.

ASSETS.	
Cost of road and fixtures	\$36,802,287.11
Land contracts, land cash, etc.	1,399,002.14
Cash on hand	3,741.73
Miscellaneous investments	34,389.99
Sinking fund in hands of trustees ..	53,758.84
Bills receivable	2,553.04
Accounts receivable	1,364,856.02
Total	\$49,660,588.87

LIABILITIES.

First-mortgage bonds.....	\$19,972,000.00	
Interest on same, due and accrued.....	500,100.00	
Dividends unpaid.....	2,045.73	
Accounts payable.....	5,371,429.60	
Pay rolls and vouchers.....	134.65	
Land-grant account.....	1,399,002.14	
Capital stock.....	19,000,000.00	
Total.....		\$46,064,712.12
Deficit.....		6,404,123.25

ST. JOSEPH AND GRAND ISLAND RAILWAY COMPANY.

The St. Joseph and Grand Island Railroad Company was formed, June 22, 1885, by a consolidation of the Grand Island and Marysville and the St. Joseph and Marysville Railroad companies, and its entire main line was opened to public business on October 1, 1879. In 1893 the road passed into the hands of the Union Pacific Railway receivers, which company owned a majority of the capital stock of this company. On December 23, 1896, the property of the company was sold, after a long default, in foreclosure of the first mortgage, and was purchased for the first-mortgage bondholders' committee in the name of Mr. Olcott, the chairman, the amount of his bid being \$3,000,000. The purchaser then caused new corporations to be formed in Kansas and Nebraska which were subsequently (February 27, 1897) consolidated to form the St. Joseph and Grand Island Railway Company. The property was turned over to the new company on March 1, 1897. The Kansas City and Omaha Railroad Company was sold under foreclosure on July 8, 1896, and reorganized in September, 1896, as the Kansas City and Omaha Railway Company, which took possession of its road on November 1, 1896. Since then that road has been operated by the St. Joseph and Grand Island Railway Company under an operating agreement.

By act of Congress approved July 23, 1866, the St. Joseph and Denver City Railroad Company (afterwards St. Joseph and Marysville) received through the State of Kansas a grant of 1,700,000 acres of land to aid in its construction. St. Joseph, Mo., and Grand Island, Nebr., are the land-grant termini. The records of the General Land Office show that to June 30, 1901, there had been patented to the company 462,733.24 acres. The company fails to make a report on the operations of the land department.

The road extends from St. Joseph, Mo., to Grand Island, Nebr., a distance of 251.06 miles, in addition to which there are 45.66 miles of sidings. The track is laid entirely with steel rails, 166.46 miles of 60-pound weight and 84.60 miles of 52-pound weight. There are 328 miles of fencing.

During the year oak cross-ties were placed in the track at a cost of \$35,077.14, and new rails at a cost of \$14,208.36. The rolling stock now consists of 30 locomotives, and 21 cars in the passenger, 844 in the freight, and 103 in the miscellaneous departments, respectively.

The assessed valuation of the roadway, bridges, buildings, etc., for taxation is \$1,952,214.59.

The following statements show the financial condition of the company on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$222,878.98	\$216,595.22	\$6,283.76	
Freight	1,076,145.68	1,094,431.69		\$18,286.01
Mail	32,590.15	32,289.21	300.94	
Express	20,783.77	19,996.16	787.61	
Miscellaneous	47,556.24	41,382.57	6,173.67	
Total	1,399,954.82	1,404,694.85		4,740.03
EXPENSES.				
Maintenance of way and structures ..	147,633.03	209,369.76		61,736.73
Maintenance of equipment	82,977.62	125,752.21		42,774.59
Conducting transportation	518,137.77	611,889.77		93,752.00
General expenses and taxes	145,394.03	132,397.05	12,996.98	
Total	894,142.45	1,079,408.79		185,266.34
Net earnings	505,812.37	325,286.06	180,526.31	
Miles operated	251.06	251.06		
Earnings per mile	\$5,576.17	\$5,595.05		\$18.88
Expenses per mile	3,561.46	4,299.40		737.94
Net earnings per mile	2,014.71	1,295.65	\$719.06	
Percentage of expenses to earnings ..	63.87	76.84		12.97

Revenue and expenditures for year.

REVENUE.

Earnings	\$1,399,954.82
Net receipts from sale of property	1,007.63
Profit and loss items	11,362.92
Charges to expenses unexpended	6,456.46
Total	\$1,418,781.83

EXPENDITURES.

Operating expenses	811,654.65
Interest on first-mortgage bonds	105,000.00
Taxes	82,487.80
New construction	528.12
Dividends, January and July, 1901	274,880.00
Total	1,274,550.57
Surplus	144,231.26

General balance sheet.

ASSETS.	
Cost of road, fixtures, and equipment.....	\$17, 225, 451. 55
Fuel, material, and stores on hand	83, 023. 82
Cash on hand.....	282, 600. 50
Company's stocks and bonds owned by company...	572, 400. 00
Accounts receivable	140, 848. 45
Suspense accounts.....	1, 685. 96
Total	\$18, 306, 010. 28
LIABILITIES.	
First-mortgage bonds.....	4, 000, 000. 00
Interest on same due and accrued	1, 920. 00
Interest on same accrued not due.....	52, 500. 00
Dividends unpaid	137, 440. 00
Accounts payable	46, 507. 90
Pay roll and vouchers	121, 831. 52
Due other companies account traffic	77, 446. 57
Due other companies account leases	4, 353. 72
Sinking funds uninvested	37, 363. 99
Capital stock.....	13, 600, 000. 00
Total	18, 079, 363. 70
Surplus.....	226, 646. 58

ST. LOUIS, IRON MOUNTAIN AND SOUTHERN RAILWAY COMPANY.

This company was formed on April 30, 1874, by the consolidation of the St. Louis, Iron Mountain and Southern Railway Company (organized March 3, 1871) and the Cairo and Fulton Railway Company of Arkansas (organized January 12, 1853). The company has since acquired, by purchase, the following roads: Doniphan Branch Railroad, Jackson Branch Railroad, Kansas City and Southern Railway, Iron Mountain and Helena Railroad Little Rock, Mississippi River and Texas Railway, and the Houston, Central Arkansas and Northern Railway.

In 1881 practically all the capital stock of this company was acquired by the Missouri Pacific Railway Company, that company issuing three shares of its stock for every four of Iron Mountain. This company, together with its leased line, the Little Rock and Fort Smith Railway, are now operated a part of the Missouri Pacific system.

By the act of Congress approved February 9, 1853, there were granted to the Cairo and Fulton Railroad (since consolidated with this company), through the States of Missouri and Arkansas, 1,178,411.05 acres of land, all of which has been patented to the company. The land-grant termini are Birds Point, on the Mississippi River opposite Cairo, Ill., via Poplar Bluff, Mo., Little Rock and Texarkana, Ark. The records of the General Land Office fail to show a grant of land to any of the roads named above; but under "Forfeitures" (Land Office Report, 1888, p. 109) it is stated that "by act of June 28, 1884, the grant to the

Iron Mountain of 601,600 acres, from Pilot Knob, Mo., to Helena, Ark., was forfeited, and 10,000 acres of railroad indemnity lands located in Missouri and 5,000 acres located in Arkansas have been restored." The records of the General Land Office do, however, show that to June 30, 1901, there had been patented to the St. Louis, Iron Mountain and Southern Railroad Company 1,388,324.68 acres of land.

The company's report gives the operations of its land department in two divisions, and also the operations of its leased line—the Little Rock and Fort Smith Railway—as follows:

Missouri division.—Acquired by United States patent, 65,119.60 acres, and by cancellation of contracts, 6,391.38 acres; in all, 71,510.98 acres, of which there have been sold for cash and on time contracts 65,574.55 acres. The total cash receipts from all sales to June 30, 1901, amounted to \$430,444.20, and there were outstanding on account of time sales \$4,714.94. The receipts from this department during the year amounted to \$33,596.91, and the expenses to \$2,091.76. The average price per acre now asked for land is \$3.50.

Arkansas division.—Acquired by United States patent, 1,344,081.57 acres, and by cancellation of contracts, 269,927.06 acres; in all, 1,614,008.63 acres, of which there have been sold and lost by contest 1,189,372.37 acres, leaving the balance still owned by the company 424,636.26 acres. The total cash receipts from all sales to June 30, 1901, amounted to \$3,193,505.74, and there were outstanding on account of time sales \$252,529.51. The cash receipts from this department during the year amounted to \$184,104.33, and the expenses to \$53,909.29. The remaining lands are held at an average price of \$2.65 per acre.

Little Rock and Fort Smith Railway.—Acquired by patent from the United States, 1,058,431.98 acres, and by cancellation and resurvey, 236,267.70 acres; in all, 1,294,699.68 acres, of which there have been sold and lost by contest 817,798.98 acres, leaving the balance still owned by the company 476,900.70 acres. The total cash receipts from all sales to June 30, 1901, amounted to \$2,473,785.16, and there were outstanding on account of time sales \$194,855.90. The cash receipts from this department for the year were \$81,934.87. The average price per acre at which the remaining lands are held is \$2.50.

The Little Rock and Fort Smith Railway Company, under an act approved February 9, 1853, received a grant of 1,100,000 acres of land. Argenta, on left bank of Arkansas River, opposite Little Rock, Ark., and Garrison avenue, Fort Smith, Ark., are the land-grant termini. The records of the General Land Office show that to June 30, 1901, there had been patented to the company 1,057,647.55 acres of land.

The St. Louis, Iron Mountain and Southern Railway Company owns 1,428.86 miles and leases 344.91 miles, making the total mileage operated 1,773.77 miles. There are 10.27 miles of double track and 424.38

miles of sidings. The track for 1,755.14 miles is laid with steel rails, and there are 1,649.48 miles of fencing.

During the year 4,216.18 tons of new steel rails were laid, at a cost of \$165,832.94, and 894,511 new oak cross-ties were placed under the track, at a cost of \$244,453.52. Betterments were effected through expense accounts, and no separate improvement account is kept. The rolling stock on June 30, 1901, consisted of 271 locomotives, 124 passenger cars, 10,920 cars in the freight service, and 1,589 in the miscellaneous department.

The following statements show the operations of the road for the year and the company's balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$2,542,669.84	\$2,406,888.87	\$136,780.47	
Freight.....	12,030,760.36	10,877,949.23	1,152,811.13	
Mail.....	471,215.48	464,527.51	6,687.97	
Express.....	387,009.29	319,262.55	67,746.74	
Miscellaneous.....	341,025.06	310,668.25	30,361.81	
Total.....	15,772,679.53	14,378,291.41	1,394,388.12	
EXPENSES.				
Maintenance of way and structures.....	1,492,494.23	1,708,939.51		\$216,445.28
Maintenance of equipment.....	1,507,710.35	1,410,509.71	97,200.64	
Conducting transportation.....	5,647,654.68	5,341,460.39	306,194.29	
General expenses and taxes.....	332,169.59	323,643.58	8,526.01	
Total.....	8,980,028.85	8,779,553.19	200,475.66	
Net earnings.....	6,792,650.68	5,598,738.22	1,193,912.46	
Miles operated.....	1,773.77	1,773.77		
Earnings per mile.....	\$3,892.17	\$3,106.06	\$786.11	
Expenses per mile.....	5,062.68	4,949.65	113.03	
Net earnings per mile.....	3,829.49	3,156.41	673.06	
Percentage of expenses to earnings.....	56.92	61.06		4.14

Revenue and expenditures for year.

REVENUE.	
Earnings.....	\$15,891,740.25
Dividends on stocks of other companies.....	20,873.60
Interest on bonds of other companies.....	915,305.00
Sundry amounts.....	17,746.67
Total.....	\$16,845,665.52
EXPENDITURES.	
Operating expenses, rentals, and taxes.....	9,601,962.57
Interest on funded debt.....	3,070,795.39
Dividends, No. 6.....	1,547,242.50
Compensation retained by United States.....	39,097.35
Sundry amounts.....	819,338.80
Total.....	15,078,436.61
Surplus.....	1,767,228.91

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment.....	\$71,132,022.13	
Cost of real estate	514,195.89	
Land contracts, land cash, etc.....	1,307,146.18	
Company's stocks and bonds.....	27,118,443.28	
Bills receivable	30.00	
Accounts receivable	1,768,915.20	
Total.....		\$101,840,752.68

LIABILITIES.

Funded debt.....	68,345,997.36	
Interest on same due and unpaid	496,743.15	
Interest on same accrued not due.....	533,539.18	
Bills payable.....	495,150.05	
Accounts payable	95,949.55	
Capital stock.....	25,795,710.00	
Total.....		95,763,089.29
Surplus.....		6,077,663.39

ST. LOUIS AND SAN FRANCISCO RAILROAD COMPANY.

This company was incorporated June 29, 1896, as the successor of the St. Louis and San Francisco Railway Company, the road of the latter having been purchased by the present company at foreclosure sale on June 27, 1896, as mentioned in a previous report. The road of this company was originally the Southwest Branch of the Pacific Railroad of Missouri, and received a grant of land and a loan from the State to aid in its construction. Failing in the payment of interest on State bonds, the road was sold to the South Pacific Railroad Company and subsequently to the Atlantic and Pacific Railroad Company, which extended the road to its present terminus. This company was succeeded by the St. Louis and San Francisco Railway Company, above mentioned.

By act of June 10, 1852, there were granted to the Southwest Branch of the Pacific Railroad of Missouri 1,161,235.07 acres of land, and by act of July 27, 1866, to the Atlantic and Pacific Railroad Company 699,351.57 acres in Missouri, now owned by this company, making a total of 1,860,586.64 acres granted. The records of the General Land Office show that to June 30, 1901, there had been patented to the company 1,283,166.66 acres.

The company in its report to the stockholders states that it has received on account of the South Pacific grant 1,161,244.47 acres, of which there have been sold 1,087,901.20 acres, leaving on hand 73,343.27 acres, and on account of the Atlantic and Pacific grant 506,816.33 acres, of which there have been sold 503,831.81 acres, leaving on hand 2,984.52 acres, or a total from the two grants of 76,327.79 acres. The lands and town lots on hand are valued at \$168,465.58 and the exist-

ing contracts at \$38,272.98. The net profit from the land department during the year amounted to \$11,659.55.

The St. Louis, Salem and Arkansas Railroad and the Kansas City and Southwestern Railroad, both of which were formerly leased by this company, were bought at foreclosure and now form integral parts of this company. The Central Division of the Atlantic and Pacific Railroad was purchased by this company at the foreclosure sale, and since January 1, 1898, has been operated as the Southwestern Division.

The Arkansas and Oklahoma Railroad was purchased November 20, 1900, and the Oklahoma City Terminal was completed November 1, 1900. The results of the operations of these roads are included in the income account since those dates.

The main line of this company extends from St. Louis to Oklahoma City, Okla., 543.09 miles; from Pierce City to Ellsworth, Kans., 323.80 miles; from Monett to Red River, Ind. T., 285.79 miles, and from Springfield, Mo., to Knoche Junction, Mo., 185.69 miles, making total length of main line 1,338.78 miles. The branch lines aggregate 369.34 miles, making total length of road owned and operated 1,707.71 miles. In addition there are 287.30 miles of side track.

During the year 12,065 tons of new steel rails were laid, costing \$361,950, and 690,292 new cross-ties were placed in the track, costing \$204,416.08. The rolling stock at the end of the year consisted of 246 locomotives and 165 cars in the passenger, 6,275 in the freight, and 277 in the road and miscellaneous departments, respectively.

The following statements show the operations of the road for the year and the company's balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$2,143,323.06	\$1,835,566.79	\$307,756.27	.....
Freight.....	7,243,721.05	5,520,998.52	1,722,722.53	.....
Mail.....	276,718.29	248,620.26	28,098.03	.....
Express.....	338,959.45	253,455.64	85,503.81	.....
Miscellaneous.....	170,975.40	124,604.85	46,370.55	.....
Total.....	10,178,697.25	7,983,246.06	2,195,451.19	.....
EXPENSES.				
Maintenance of way and structures ..	1,317,489.22	869,841.67	447,647.65	.....
Maintenance of equipment.....	957,039.59	797,780.90	159,308.69	.....
Transportation and traffic.....	3,269,170.57	2,779,216.84	489,953.73	.....
General expenses and taxes.....	649,508.55	496,799.64	153,708.91	.....
Total.....	6,193,208.03	4,942,589.05	1,250,618.98	.....
Net earnings.....	3,985,489.22	3,040,657.01	934,832.21	.....
Miles operated.....	1,707.71	1,401.95	305.76	.....
Earnings per mile.....	\$5,957.50	\$5,694.38	\$263.12	.....
Expenses per mile.....	3,626.61	3,525.51	101.10	.....
Net earnings per mile.....	2,330.89	2,168.87	162.02	.....
Percentage of expenses to earnings...	60.87	61.91	.....	1.04

Revenue and expenditures for year.

REVENUE.

Earnings	\$10, 173, 697. 25	
Profits on stocks, bonds, and miscellaneous investments	99, 510. 58	
Net receipts of the land department	11, 659. 55	
Dividends on 31 St. Louis, Kansas and Southwestern bonds	629. 90	
Liquidation dividend on 81 shares Logan Real Estate Company	15. 97	
Balance June 30, 1900	978, 096. 71	
Total		\$11, 263, 609. 96

EXPENDITURES.

Operating expenses	6, 193, 208. 03	
Interest on funded debt	2, 281, 803. 32	
Taxes on lands in New Mexico and Arizona	9, 658. 06	
Contribution toward construction of Science Hall for Drury College, Springfield	2, 500. 00	
Expense of Northwestern Division bonds	3, 251. 00	
One-half reorganization expenses of Kansas Midland Railway	1, 194. 75	
Expenses of engraving, etc., refunding mortgage bonds	13, 000. 00	
New improvements	180, 556. 78	
Dividends, first preferred stock	200, 000. 00	
Dividends, second preferred stock	400, 000. 00	
Internal-revenue stamps for refunding mortgage bonds	42, 084. 23	
State tax on increase capital stock from \$50,000,000 to \$100,000,000	25, 000. 00	
Uncollectible accounts written off, less accounts payable	684. 94	
Total		9, 352, 941. 09
Surplus		1, 910, 668. 87

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment	\$93, 026, 508. 90
Fuel, material, and stores on hand	436, 461. 52
Cash on hand	965, 925. 52
Company's stocks and bonds	4, 784, 724. 74
Other stocks and bonds	26, 719. 60
Miscellaneous investments	14, 178. 44
Sinking funds in hands of trustees	14, 043. 36
Accounts receivable, net	730, 518. 19
Due from other companies on account of traffic, net	118, 579. 65
St. Louis World's Fair stock	3, 500. 00

EXPENDITURES.

Salaries and maintenance of organization.....	\$11, 776. 48	
Interest on mortgage bonds.....	4, 325, 252. 51	
Sinking-fund requirements.....	250, 000. 00	
New construction.....	1, 173, 919. 30	
New equipment.....	1, 221, 438. 47	
Taxes.....	537, 088. 20	
Expenses of the land department.....	34, 652. 38	
Set over to special income accounts.....	312, 141. 00	
Adjustment United States Government bonds....	931. 26	
Adjustment of accounts.....	6, 825. 31	
Total.....		<u>\$7, 874, 024. 91</u>
Surplus.....		<u>1, 237, 617. 63</u>

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment.....	\$198, 340, 342. 09	
Cost of real estate.....	2, 046, 473. 21	
Land contracts.....	847, 432. 04	
Land contracts in suspense.....	1, 250, 000. 00	
Cash deposited to credit of trustees.....	378, 683. 22	
Stocks and bonds.....	2, 335. 95	
Sinking fund in hands of trustees.....	3, 900, 368. 35	
Bills receivable.....	65. 50	
Accounts receivable.....	6, 759, 153. 94	
Interest on sinking-fund securities accrued not due.	32, 271. 67	
Total.....		<u>\$213, 557, 125. 97</u>

LIABILITIES.

First, second, and third mortgage bonds.....	79, 183, 000. 00	
Interest on same due and accrued.....	418, 407. 50	
Bills payable.....	2, 130. 91	
Trustees' land-grant mortgage.....	378, 683. 22	
Sinking funds uninvested.....	833, 776. 46	
Principal of deferred payments on land contracts.	847, 432. 04	
Principal of deferred payments on land contracts in suspense.....	1, 250, 000. 00	
Overlaps in land grants.....	161, 653. 77	
Deposits with land department.....	16, 014. 89	
Unadjusted accounts.....	6, 310. 00	
Appropriation for betterments and additions.....	466, 290. 00	
Capital stock.....	101, 424, 160. 00	
Total.....		<u>184, 987, 858. 79</u>
Surplus.....		<u>28, 569, 267. 18</u>

field, Mo., via Canadian River; Albuquerque and Agua Fria and Colorado River and the Pacific Ocean are the land-grant termini. The portion of this grant within the State of Missouri, estimated at 1,139,200 acres, is now owned by the St. Louis and San Francisco Railroad Company. The records of the General Land Office show that by the act of July 6, 1886, there were forfeited in California and New Mexico 10,795,480 acres, and that 4,790,000 acres of railroad indemnity lands have been restored to the public domain. There had been patented to the company to June 30, 1901, in Arizona 494,981.53 acres and in New Mexico 335,624.09 acres, making a total of 830,605.62 acres.

The company reports that it has received by United States patent 708,523.47 acres of land, all of which has been disposed of, the total receipts to date being \$3,977,859.61. The receipts from that source during the year amounted to \$14,287.81 and the expenses to \$41,967.83.

The number of miles of road owned is 563.01 and leased 324.98. There are 187.10 miles of sidings, making the total length of road operated 1,075.09 miles. The road is laid with steel rails of 56 and 75 pounds to the yard. During the year 657.28 tons of new steel rail were laid, at a cost of \$17,943.19, and 136,080 new cross-ties were placed in the track, costing \$60,732.50. The additions and betterments to railway amounted to \$587,078.40; the additions to rolling stock amounted to \$3,709.27. The valuation of roadway, bridges, buildings, rolling stock, etc., as assessed for taxation, was \$4,063,093.61.

The rolling stock consists of 196 locomotives, all of which are equipped with air brakes; 29 cars in the passenger service, all equipped with Westinghouse brakes and national couplers and platforms; 1,614 cars in the freight service, of which 1,610 are equipped with air brakes, and 161 cars in the road and miscellaneous service.

The express business is transacted by Wells, Fargo & Co. Pullman Palace Car Company's sleeping and tourist cars are run on a mileage basis. The telegraph business is conducted under contract with the Western Union Telegraph Company.

The following statements show the earnings and expenses for the year, and the financial condition of the company on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$1,416,573.86	\$1,153,092.90	\$263,480.96	
Freight	5,295,900.04	4,868,516.63	427,383.41	
Mail	166,902.20	166,512.93	389.27	
Express	136,728.33	124,968.01	11,760.32	
Miscellaneous	57,884.23	60,935.78		\$3,051.55
Total	7,073,988.66	6,374,026.25	699,962.41	
EXPENSES				
Maintenance of way and structures ..	640,444.43	890,900.06		190,355.63
Maintenance of equipment	1,132,692.12	780,175.63	352,516.49	
Conducting transportation	2,668,325.13	2,033,663.47	534,661.66	
General expenses and taxes	272,046.67	253,997.86	18,048.81	
Total	4,613,508.35	3,898,637.02	714,871.33	
Net earnings	2,460,480.31	2,475,389.23		14,908.92
Miles operated	887.99	887.99		
Earnings per mile	\$7,966.29	\$7,178.03	\$788.26	
Expenses per mile	5,195.45	4,390.40	806.05	
Net earnings per mile	2,770.84	2,787.63		\$16.79
Percentage of expenses to earnings ..	65.22	61.16	4.06	

Revenue and expenditures for year.

REVENUE.

Earnings	\$7,073,988.66	
Interest on bonds of other companies ..	4,380.00	
Interest on miscellaneous investments ..	3,180.91	
Receipts of the land department	14,287.81	
Cancellation of unclaimed pay checks ..	5,609.86	
Surplus, June 30, 1900	703,741.68	
Total		\$7,805,188.92

EXPENDITURES.

Operating expenses	4,613,508.35	
Interest on first-mortgage bonds	640,000.00	
Losses on bonds of other companies	127,400.00	
Rental, Mojave division	218,133.00	
Expenses of the land department	41,967.83	
Permanent improvements, charged to income account ..	77,805.57	
Adjustment of fuel account	37,500.00	
Total		5,756,314.75
Surplus		2,048,874.17

General balance sheet.

ASSETS.

Cost of road and fixtures.....	\$23, 283, 820. 27
Cost of equipment.....	38, 713. 65
Fuel, material, and stores on hand	691, 458. 81
Cash on hand	125, 150. 28
Stocks and bonds	241, 700. 00
Prepaid insurance premium.....	3, 860. 37
Bills receivable	7, 846. 20
Accounts receivable	467, 743. 90
Due from other companies on account of traffic.....	495, 566. 79
Total	<u>\$25, 355, 860. 27</u>

LIABILITIES.

First-mortgage bonds.....	16, 000, 000. 00
Interest on same, due and accrued.....	1, 058, 493. 20
Interest on same accrued, not due.....	160, 000. 00
Bills payable.....	898, 144. 43
Accounts payable	20, 428. 34
Pay rolls and vouchers	824, 080. 01
Accrued taxes not yet due	145, 097. 05
Rolling-stock replacement fund	39, 566. 94
Rail-renewal fund.....	127, 811. 14
Tie-renewal fund	33, 364. 99
Capital stock.....	<u>4, 000, 000. 00</u>
Total	<u>23, 306, 986. 10</u>
Surplus.....	2, 048, 874. 17

SOUTHERN PACIFIC RAILROAD COMPANY OF CALIFORNIA.

This company was formed by a consolidation on May 14, 1888 (amended November 3, 1892), of the following-named railroad companies:

Southern Pacific Railroad,
 San Jose and Almadon Railroad,
 Pajaro and Santa Cruz Railroad,
 Monterey Railroad,
 Monterey Extension Railroad,
 Southern Pacific Branch Railway,
 San Pablo and Tulare Railroad,
 San Pablo and Tulare Extension Railroad,
 San Ramon Valley Railroad,
 Stockton and Copperopolis Railroad,
 Stockton and Tulare Railroad,
 San Joaquin Valley and Yosemite Railroad,
 Los Angeles and San Diego Railroad,
 Los Angeles and Independence Railroad,
 Long Beach, Whittier and Los Angeles County Railroad,
 Long Beach Railroad,
 Southern Pacific Railroad Extension, and
 Ramona and San Bernardino Railroad.

On April 14, 1898, were added the—

Southern Pacific Railroad,
Northern Railway,
Northern California Railway, and
California Pacific Railroad.

The road of this company is leased to the Southern Pacific Company for ninety-nine years, being included in what is known as the "omnibus lease," dated March 1, 1885, by the terms of which the lessee company agrees to maintain the road, to pay all fixed and other charges, including interest on bonds and floating debt, and to divide the surplus net profit between the companies, this company to have as its proportion 44 per cent thereof. Betterments and additions are currently made by the lessee, each company being charged with the cost of additions to its separate property.

Since the last report of this Bureau a controlling interest in the Southern Pacific Company has been acquired by the Union Pacific Railroad Company.

By the acts of Congress approved July 27, 1866, and March 3, 1871, this company received grants of 14,007,840 acres of land in aid of construction. San Jose and Tres Pinos, Cal.; Huron, via Goshen, Tulare, Mojave, Los Angeles, and the Colorado River opposite Yuma, Ariz.; New Orleans and Morgan City, La., are the land-grant termini. The records of the General Land Office show that to June 30, 1901, there had been patented to the company in the State of California 3,317,009.90 acres; that 3,800,000 acres of railroad indemnity lands located in California have been restored to the public domain, and that by a decision of the Commissioner of the General Land Office, affirmed by the Secretary of the Interior under date of November 2, 1885, there had also been restored to the public domain 550,000 acres of land.

The company reports that it has acquired by United States patent 3,421,571.25 acres by deeds from master in chancery, and by decrees of court 3,250.57 acres, and by cancellation of contracts 607,924.13 acres, making a total of 3,971,646.12 acres, after deducting losses of 61,099.83 acres, sustained by decrees of court. It has disposed of for cash 443,970.09 acres, and on time contracts 3,331,616.34 acres. The number of acres still owned by the company for which it has received patent is 1,070,914.77.

The total cash receipts from all sales of land to date, principal and interest, have amounted \$9,789,854.53, and the amount now outstanding on account of time sales is \$2,401,678.20. The receipts from this department during the year were \$134,533.87, and the expenses \$62,940.64.

The company operates 2,467.27 miles of road. There are 47.07 miles of double track and 709.16 miles of sidings. New steel rails, aggregating 8,441.17 tons, were laid during the year, at a cost of

\$301,856.24, and 562,454 new cross-ties were placed in the track, costing \$293,436.16. The additions and betterments to railway, etc., charged to construction account amounted to \$1,589,882.97, and charged to operating expenses to \$1,189,419.76. The betterments to rolling stock amounted to \$1,932,484.01, of which amount \$1,205,938.01 was charged to operating expenses.

The rolling-stock equipment at the end of the year consisted of 306 locomotives and 386 cars in the passenger service, 8,395 in the freight, and 439 in the miscellaneous departments, respectively.

The assessed valuation of roadway, bridges, track, and rolling stock for taxation was \$22,282,205, or \$10,500 per mile; of real estate, buildings, tools, and furniture, \$6,023,662, or \$2,838.40 per mile. The valuations are assessed separately by State and local boards.

The following statements show the operations for the year and the company's balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ended—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger.....	\$6, 013, 480.69	\$6, 032, 250.02		\$48, 769.33
Freight.....	11, 995, 614.94	10, 352, 448.82	\$1, 643, 166.12	
Mail.....	332, 854.84	329, 521.56	3, 333.28	
Express.....	891, 048.74	260, 283.48	30, 765.26	
Miscellaneous.....	258, 487.72	510, 456.06		251, 968.34
Total.....	18, 891, 486.93	17, 514, 969.94	1, 376, 526.99	
EXPENSES.				
Maintenance of way and structures.....	2, 901, 231.06	2, 348, 353.51	552, 877.55	
Maintenance of equipment.....	2, 000, 003.10	1, 973, 501.56	26, 501.54	
Conducting transportation.....	6, 155, 923.44	6, 064, 169.52	71, 753.92	
General expenses and taxes.....	1, 049, 662.14	913, 119.07	136, 543.07	
Total.....	12, 106, 819.74	11, 319, 143.66	787, 676.08	
Net earnings.....	6, 784, 667.19	6, 195, 816.28	588, 850.91	
Miles operated.....	2, 467.27	2, 426.88	40.39	
Earnings per mile.....	\$7, 656.83	\$7, 217.06	\$439.77	
Expenses per mile.....	4, 906.97	4, 664.07	242.90	
Net earnings per mile.....	2, 749.86	2, 552.99	196.87	
Percentage of expenses to earnings.....	64.09	64.62		0.53

Revenue and expenditures for year.

REVENUE.	
Earnings.....	\$8, 538, 113.98
Interest.....	225, 111.65
Receipts of the land department.....	136, 049.33
Interest on sinking fund.....	176, 091.67
Seven and one-half shares of Azusa Irrigation Company.....	1.00
Income from lands not pledged for bonded debt..	36, 274.91
Total.....	\$9, 111, 642.54

EXPENDITURES.

Salaries and maintenance of organization.....	\$11, 776. 48	
Interest on mortgage bonds.....	4, 325, 252. 51	
Sinking-fund requirements.....	250, 000. 00	
New construction.....	1, 173, 919. 30	
New equipment.....	1, 221, 438. 47	
Taxes.....	537, 088. 20	
Expenses of the land department.....	34, 652. 38	
Set over to special income accounts.....	312, 141. 00	
Adjustment United States Government bonds....	931. 26	
Adjustment of accounts.....	6, 825. 31	
		<hr/>
Total.....		\$7, 874, 024. 91
		<hr/>
Surplus.....		1, 237, 617. 63

General balance sheet.

ASSETS.

Cost of road, fixtures, and equipment.....	\$198, 340, 342. 09	
Cost of real estate.....	2, 046, 473. 21	
Land contracts.....	847, 432. 04	
Land contracts in suspense.....	1, 250, 000. 00	
Cash deposited to credit of trustees.....	378, 683. 22	
Stocks and bonds.....	2, 335. 95	
Sinking fund in hands of trustees.....	3, 900, 368. 35	
Bills receivable.....	65. 50	
Accounts receivable.....	6, 759, 153. 94	
Interest on sinking-fund securities accrued not due.....	32, 271. 67	
		<hr/>
Total.....		\$213, 557, 125. 97

LIABILITIES.

First, second, and third mortgage bonds.....	79, 183, 000. 00	
Interest on same due and accrued.....	418, 407. 50	
Bills payable.....	2, 130. 91	
Trustees' land-grant mortgage.....	378, 683. 22	
Sinking funds uninvested.....	833, 776. 46	
Principal of deferred payments on land contracts.....	847, 432. 04	
Principal of deferred payments on land contracts in suspense.....	1, 250, 000. 00	
Overlaps in land grants.....	161, 653. 77	
Deposits with land department.....	16, 014. 89	
Unadjusted accounts.....	6, 310. 00	
Appropriation for betterments and additions.....	466, 290. 00	
Capital stock.....	101, 424, 160. 00	
		<hr/>
Total.....		184, 987, 858. 79
		<hr/>
Surplus.....		28, 569, 267. 18

TEXAS AND PACIFIC RAILWAY COMPANY.

This company was organized under the act of Congress approved March 3, 1871, and the general laws of the State of Texas. By acts of Congress approved June 3, 1856, and March 3, 1871, grants of land were made to roads forming parts of the present system amounting to 22,410,880 acres. Shreveport, La., and the Texas State line, near Waskom, Tex., are the land-grant termini.

The records of the General Land Office show that to June 30, 1901, there had been patented to the New Orleans Pacific (formerly the New Orleans, Baton Rouge and Vicksburg) Railroad Company 990,170.87 acres in the State of Louisiana, and also that by the act of February 20, 1885, there had been forfeited 15,692,800 acres of the grant to the Texas and Pacific, and 352,587 acres of the grant to the New Orleans, Baton Rouge and Vicksburg by the act of February 28, 1887, and that by the same act there had been restored to the public domain 19,000 acres of railroad indemnity lands granted to the Vicksburg, Shreveport and Pacific.

The report of the president to the stockholders gives the assets of the land department on December 31, 1900, as 75,033 acres and a very large number of town lots; also bills receivable (land notes) amounting to \$38,436.23, and \$10,370.60 in cash on hand. The average price per acre obtained for land was \$3.06.

The company has submitted to this office a report of its operations for the fiscal year ending June 30, 1901, as required by section 13 of the act of March 3, 1871.

The rolling-stock equipment on June 30, 1901, consisted of 249 locomotives, 150 cars in the passenger service, 5,658 cars in the freight service, and 422 cars in company service, an increase over the preceding year of 24 locomotives, 397 cars in the passenger service, and 48 cars in the freight service.

The road is operated in three divisions:

	Miles.
Eastern division.....	512
Rio Grande division.....	621
Louisiana division.....	532
Total	1,665

The following statements show the operations for the year and the general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ending—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$2,412,324.90	\$1,906,499.16	\$505,825.74	
Freight	8,055,720.21	5,986,125.59	2,069,594.62	
Mail	267,929.09	265,076.18	2,852.91	
Express	183,511.81	153,817.28	29,694.53	
Miscellaneous	330,133.71	297,612.10	32,521.61	
Total	11,249,619.72	8,609,130.31	2,640,489.41	
EXPENSES.				
Maintenance of way and structures ..	1,571,822.14	1,405,057.00	166,765.14	
Maintenance of equipment	1,185,985.16	1,012,087.51	173,897.65	
Conducting transportation	4,133,880.71	3,448,964.63	684,916.08	
General expenses	297,418.62	280,253.55	17,165.07	
Total	7,189,106.63	6,146,362.69	1,042,743.94	
Net earnings	4,060,513.09	2,462,767.62	1,597,745.47	
Miles operated	1,665	1,514	151	
Earnings per mile	\$6,756.52	\$5,686.34	\$1,070.18	
Expenses per mile	4,317.78	4,059.68	258.10	
Net earnings per mile	2,438.74	1,626.66	812.08	
Percentage of expenses to earnings ..	63.90	71.39		7.49

Revenue and expenditures for year.

REVENUE.	
Earnings	\$11,249,619.72
Premium account sale first-mortgage bonds	22,970.00
Coupons on first-mortgage bonds canceled	4,375.00
Interest second-mortgage bonds canceled	24,391.02
Coupons on second-mortgage bonds canceled	55.00
Premium account of sale Louisiana Division branch lines, first-mortgage bonds	33,300.00
Interest collected account of same	22,633.34
Account interest Port Allen branch bonds prior to June 30, 1900, and canceled subsequent thereto ..	13,000.00
Interest Sherman town bonds	840.96
Dividend Colorado and Southern Railway	30.00
Unclaimed wages charged off	3,990.40
Land and town lots sales	44,942.44
Westwego elevator, excess earnings	70,663.56
Interest and premium	32,637.87
Sherman town bonds	438.00
Sale of first-mortgage bonds	102,000.00
Sale of Louisiana Division branch lines first-mortgage bonds	2,110,000.00
Red River Line (proportion of cash capital refunded) ..	750.00
Capital stock Avoyelles Railway Company canceled ..	200,000.00
Bills payable (equipment notes issued)	331,362.50
Total	\$14,267,999.81

EXPENDITURES.

Operating expenses and taxes	\$7,456,854.00	
Accrued interest.....	2,270,165.84	
Sundry accounts.....	535,527.83	
Denison and Pacific Suburban Railway Company account.....	5,495.86	
Sinking fund.....	38,000.00	
Investments	1,592,564.00	
		<hr/>
Total		\$11,898,607.53
		<hr/>
Surplus.....		2,369,392.28

General balance sheet.

ASSETS.

Cost of road and equipment.....	\$82,282,481.29	
Stocks, bonds, etc.....	12,324,812.30	
Cash	2,280,849.05	
Bills receivable	115,641.91	
Due from agents.....	367,423.62	
Due from solvent companies and individuals	291,525.57	
Other cash assets	84,663.76	
Material and supplies.....	571,372.17	
Sinking fund.....	55,000.00	
Equipment trust	151,809.07	
		<hr/>
Total		\$98,525,578.74

LIABILITIES.

Capital stock.....	38,760,110.00	
Bonded indebtedness	55,486,893.95	
Audited vouchers and accounts.....	639,552.86	
Wages and salaries	77,785.30	
Net traffic balances	147,256.89	
Matured interest coupons unpaid (including coupons due July 1)	125,205.00	
Bills payable (equipment notes)	331,362.50	
Miscellaneous.....	111,471.76	
Accrued interest not yet payable	153,385.00	
Estimated taxes	103,100.28	
		<hr/>
Total		95,936,123.54
		<hr/>
Surplus.....		2,589,455.20

WISCONSIN CENTRAL RAILWAY COMPANY.

This company has failed to submit, on the form prescribed by this office, a report of its operations for the fiscal year ended June 30, 1901, claiming that under decisions of the courts it does not come within the jurisdiction of the Bureau.

The original Wisconsin Central Railroad Company was a reorganization, February 4, 1871, of the Portage, Winnebago and Superior Railroad Company. On January 4, 1879, default having been made in the payment of interest on its bonds, the trustees under the mortgage took possession of the property. On October 31, 1889, the property was again turned over to the company under a plan of reorganization, by the terms of which the trustees hold, under an irrevocable special trust until full interest is regularly paid on all bonds, substantially the entire issue of the capital stock of the company. The road was operated by the Northern Pacific Railroad Company under lease from April 1, 1890, until September 27, 1893, when the lease was terminated by decree of the court for nonpayment of rent.

The properties covered by the mortgage of the Wisconsin Central Company were sold July 7, 1899, to Messrs. George Coppel, John Crosby Brown, and William L. Bull. The rights of the purchasers having been previously duly transferred to the Wisconsin Central Railway Company, a corporation formed under the laws of the State of Wisconsin, said sale was, July 8, 1899, confirmed, and conveyance pursuant thereof was made July 13, 1899, to the Wisconsin Central Railway Company.

By an act of Congress approved May 5, 1864 (13 Stat., 66, sec. 3), there were granted to the State of Wisconsin, to aid in the construction of a railroad "from Portage City, Berlin, Dotys Island, or Fond du Lac, as said State may determine, in a northwestern direction to Bayfield, and thence to Superior, on Lake Superior, every alternate section of public land, designated by odd numbers, for ten sections in width on each side of said road," estimated by the General Land Office to include a grant of 1,800,000 acres of land. The beneficiary under this grant was the Portage, Winnebago and Superior Railroad Company (now Wisconsin Central Railway Company).

The records of the General Land Office show that to June 30, 1901, there had been patented to the company 838,107.69 acres of land, and that 200,000 acres of railroad indemnity lands located in Wisconsin had been restored to the public domain.

This office has been furnished with a copy of the report of the company to its stockholders for the year ended June 30, 1901, from which the following information is compiled.

The railroad company owned 982.85 miles of main track and 250.62 miles of sidings. It has trackage rights over 64.79 miles.

The following statements show the operations of the company for the fiscal year and the general balance sheet on June 30, 1901:

Comparative statement of earnings and expenses.

	Year ending—		Difference.	
	June 30, 1901.	June 30, 1900.	Increase.	Decrease.
EARNINGS.				
Passenger	\$1,180,762.84	\$1,182,493.11	.....	\$1,730.27
Freight	3,879,046.71	4,174,776.14	.....	295,729.43
Mail, express, and miscellaneous	264,465.03	280,146.93	.....	15,681.90
Total	5,324,274.58	5,637,416.18	.....	313,141.60
EXPENSES.				
Maintenance of way and structures ..	630,100.26	766,684.53	.....	136,584.27
Maintenance of equipment	478,313.03	492,259.53	.....	13,946.50
Conducting transportation	2,112,734.38	2,102,167.24	10,567.14	.....
General expenses	245,315.72	219,824.43	25,491.29	.....
Total	3,466,463.39	3,560,935.73	.....	114,472.34
Net earnings	1,857,811.19	2,066,480.45	.....	198,669.26
Miles operated	955.07	945.27	9.80	.....
Earnings per mile	\$5,574.75	\$5,963.82	.....	\$389.07
Expenses per mile	3,629.54	3,788.27	.....	158.73
Net earnings per mile	1,945.21	2,175.55	.....	230.34
Percentage of expenses to earnings ..	65.10	63.52	1.58	.....

Revenue and expenditures for year.

REVENUE.		
Earnings	\$5,324,274.58	
Other income	20,919.95	
Total		\$5,345,194.53
EXPENDITURES.		
Operating expenses	3,466,463.39	
Taxes accrued	213,115.73	
Rentals	332,829.49	
Interest on bonds	1,086,668.56	
Total		5,099,077.17
Surplus		246,117.36

General balance sheet.

ASSETS.	
Cost of road	\$48,584,840.02
Cost of equipment	4,024,078.31
Cost of Minneapolis real estate and improvements ..	570,960.30
Ten locomotives from Brooks Locomotive Works...	127,441.96
Treasury preferred stock	1,232,895.64
Treasury common stock	1,352,124.07
Material in private tracks, property of the company .	137,970.39
Investments in stocks and bonds	53,777.63
William L. Bull, trustee	78,038.19

Wisconsin Central Railroad first series bonds sinking-fund, trustees	\$400,142.47
Cash in special improvement fund	792,316.38
Fuel, material, and stores on hand	601,647.86
Agents and conductors	290,939.49
Due from Post-Office Department	30,428.95
Due from individuals and companies	214,175.99
Interest accrued on securities owned	200.00
Cash	667,968.22
Outstanding contracts for sales of land, royalties, etc.	189,172.78
Insurance account.....	424.50
Tax account	11,762.96
Total.....	\$59,361,306.11

LIABILITIES.

Capital stock, preferred	12,500,000.00
Capital stock, common.....	17,500,000.00
First-mortgage bonds.....	26,684,500.00
Purchase-money mortgage bonds.....	950,000.00
Brooks Locomotive Works.....	122,937.70
Pay rolls and vouchers	423,382.98
Accounts payable	76,811.47
Interest on funded debt accrued.....	554,702.50
Sinking fund, trustees, for account of land sales	225,637.20
Equipment renewal account.....	41,655.11
Rebuilding suspense account.....	4,744.01
Total.....	59,084,370.97
Surplus.....	276,935.14

The estimates of appropriation submitted and recommended by me for the Bureau for the year ending June 30, 1903, are as follows: Commissioner, \$4,500; bookkeeper, \$2,000; clerk, \$1,400; clerk, \$1,000; assistant messenger, \$720; total, \$9,620.

The personnel of the Bureau at present is as follows:

James Longstreet, Commissioner	\$4,500
Herman Schreiner, bookkeeper	1,600
Miss K. M. Schmidt, clerk.....	1,400
Miss Ellen W. Fitz Simons, clerk.....	1,000
Abraham Hayson, assistant messenger.....	720

It affords me pleasure to commend the general efficiency of the employees of the Bureau.

I have the honor to be, very respectfully, your obedient servant,

JAMES LONGSTREET,
Commissioner.

Hon E. A. HITCHCOCK,
Secretary of the Interior.

APPENDIXES.

Appendix A.—Principal laws of Congress, with index, relating to both the bond-aided and land-grant railroads.

Appendix B.—Abstracts of the decisions of the Supreme Court in cases affecting the bond-aided Pacific railroad companies and to which the United States are parties.



APPENDIX A.

INDEX TO LAWS.

ATLANTIC AND PACIFIC RAILROAD COMPANY.

Act of July 27, 1866.

- Act, to be null and void unless \$1,000,000 are subscribed within two years. Section 19.
- Act, Congress may add to, alter, amend, or repeal. Section 20.
- Agents, directors empowered to appoint. Section 15.
- Agricultural lands, excluded in lieu of "mineral." Section 3.
- Annual report, to be verified by affidavits of president and six directors. Section 13.
- Assessments, directors to require payment of 10 per cent cash and the balance as they shall deem to be necessary. Section 16.
- Assignment of interest by previously aided roads. Section 3.

Act of June 25, 1868.

- Annual reports, shall be made to Secretary of Interior on or before October 1 of each year. Section 2. (Repealed by Thurman Act.)

Act of July 27, 1866.

- Branch line, authorized to be constructed from Canadian River to a point near Van Buren, Ark. Section 1.

Act of April 20, 1871.

- Bonds, authority for issue of. Section 1.

Act of July 27, 1866.

- Capital stock, 1,000,000 shares at \$100 each, subscriptions to, first meeting of subscribers. Section 1.
- Capital stock, who may subscribe. Section 10.
- Capital stock, forfeited, redemption of. Section 16.
- Capital stock, unless \$1,000,000 are subscribed within two years, act to be null and void. Section 19.
- Claims (damages for land taken), barred if not made within six years. Section 7.
- Commissioners, board appointed, organization, first meeting, other meetings, to open books for subscriptions to stock; to deliver to directors all moneys, properties, books, etc. Section 1.
- Commissioners, to examine road, President United States shall appoint three, to report under oath. Section 4.
- Congress, powers of. Sections 9, 11, 20.
- Connections with other roads. Sections 5, 18.
- Completion of road by July 4, 1878. Section 8.
- Completion of road, Congress may insure. Section 9.
- Compensation of directors, engineers, commissioners, etc., to be paid by railroad companies, penalty in case of neglect. Section 21.

Act of March 3, 1871.

- Construction of road by Southern Pacific Railroad Company, to connect the Texas and Pacific Railroad Company with San Francisco, rights of Atlantic and Pacific Railroad Company shall not be impaired. Section 23.

Act of July 27, 1866.

Damages (for lands taken), to be determined by commissioners. Section 7.
 Depots, turnouts, etc. (same as foregoing).
 Directors, thirteen to be elected by stockholders, to have charge of all moneys, properties, books, etc. Section 1.
 Directors, qualifications of. Section 14.
 Directors, empowered to make by-laws, etc., to fill vacancies in board, to appoint engineers, agents, etc. Section 15.
 Directors, to require payment of 10 per cent cash assessment, and balance of subscriptions when needed, may prescribe terms for redemption of forfeited stock. Section 16.
 Directors, compensation of, to be paid by railroad companies; penalty in case of neglect. Section 21.
 Election of officers. Section 14.
 Engineers, directors empowered to appoint. Section 15.
 Engineers, compensation of, to be paid by railroad company; penalty in case of neglect. Section 21.

Act of April 20, 1871.

Equipment, may be mortgaged to secure bonds. Section 1.

Act of July 27, 1866.

Franchises, conferred by any authority, company authorized to accept. Section 17.
 "First-class" railroad, company to construct. Section 5.
 Forfeited stock, may be redeemed on terms prescribed by directors. Section 16.

Act of April 20, 1871.

Franchises, may be mortgaged to secure bonds. Section 1.
 Foreclosure of mortgage, affected by breach of conditions of organic act. Section 1.

Act of July 6, 1866.

Forfeiture of grant of lands adjacent to uncompleted portion of road, except right of way, etc. Section 1.

Act of July 27, 1866.

Grant of lands (*see* "Land grants").
 Gauge, to be uniform. Section 5.
 Grants, howsoever or by whomsoever conferred, company authorized to accept. Section 17.
 Grant from Indian tribes, subject to approval of President United States. Section 17.
 Incorporation of company. Section 1.
 Indian titles, United States shall extinguish. Section 2.
 Indian tribes, grants from, subject to approval of President United States. Section 17.
 Land grant, 40 sections per mile in Territories, and 20 sections per mile in States. Section 3.
 Land grant, shall be deducted if route is upon the line of any other road; road having previous grant may assign. Section 3.
 Land grants, conditions of. Section 8.
 Land grants from any source, company authorized to accept; Indian titles subject to approval by President of the United States. Section 17.
 Land grants, patents shall not issue if company neglects payment of compensation to directors, engineers, commissioners, etc. Section 21.
 Lands, not granted. Section 3.
 Lands, to be surveyed as fast as construction of road may require. Section 6.
 Lands necessary for construction of road; company authorized to take 100 feet on each side; turnouts, depots, etc.; damages. Section 7.
 Lands held by persons subject to legal disability; proceedings in cases of. Section 7.
 Lands unoccupied; claims barred if not made within six years; proceedings when. Section 7.
 Line of road. Section 1.

Act of April 20, 1871.

Lands, may be mortgaged to secure bonds. Section 1.

Act of July 6, 1886.

Land grant adjacent to uncompleted portion of road, except right of way. etc.. forfeiture of. Section 1.

Act of July 27, 1866.

Military road, subject to use of the United States. Section 11.

"Mineral," does not include iron or coal. Section 3.

Mineral lands not granted; agricultural lands in lieu of. Section 3.

Act of April 20, 1871.

Mortgage of road, equipment, lands, franchises, etc., authorized to secure bonds; to be filed and recorded in office of Secretary of Interior; breach of conditions of organic act will affect those claiming under foreclosure. Section 1.

Act of July 27, 1866.

Officers, election of. Section 14.

Officers, terms of. Section 15.

Patents for lands, not to be issued if company neglects payment of compensation to directors, engineers, commissioners, etc. Section 21.

Post-route, subject to use of the United States. Section 11.

Rails, to be made of American iron. Section 5.

Right of way, 100 feet in width on each side of road, exempt from taxation within the Territories. Section 2.

Route, if upon line of any other road, former grant shall be deducted. Section 3.

Act of June 25, 1868.

Reports (*see* Annual Reports).

Act of April 20, 1871.

Road, may be mortgaged to secure bonds. Section 1.

Act of July 6, 1886.

Right of way, exempt from forfeiture. Section 1.

Act of March 3, 1871.

Rights of Atlantic and Pacific Railroad Company shall not be impaired in construction of road by Southern Pacific Railroad Company to connect the Texas and Pacific Railroad Company with San Francisco. Section 23.

Act of July 27, 1866.

Stock (*see* "Capital stock").

Stockholders, annual meetings of, to elect thirteen directors. Section 1.

Subscriptions to capital stock, commissioners to open books for; first meeting of subscribers. Section 1.

Subscriptions to capital stock, by whom. Section 10.

Subscriptions to capital stock; directors to require payment of 10 per cent of assessments, and balance when needed. Section 16.

Survey of lands; shall be made as fast as construction of road may require. Section 6.

Transportation (United States), condition as to charges for. Section 5.

Transportation (United States), Congress may restrict charges for. Section 11.

Telegraph line, conditions as to charges for Government service. Section 5.

United States to extinguish Indian titles. Section 2.

Unoccupied lands, proceedings, claims barred if not made within six years. Section 7.

Vacancies in board, directors may fill. Section 15.

BURLINGTON AND MISSOURI RIVER RAILROAD IN NEBRASKA.

Amendment of July 2, 1864.

- Bonds (United States), not to be issued in aid of road. Section 20.
 Commissioners, appointment of, to examine road. Section 20.
 Completion of road. Section 20.
 Extension of road through Territory of Nebraska, from Missouri River to one hundredth meridian, authorized. Section 18.
 Extension of road, shall be completed within ten years. Section 20.
 Grant of land (see "Land grant").
 Indian titles, shall be extinguished by the United States. Section 18.
 Land grant, ten alternate sections per mile on each side of road, with a proviso. Section 19.
 Mineral lands not granted. Section 19.
 Patents; shall issue upon certification by commissioners of completion of 20 miles of road. Section 20.
 Right of way granted. Section 18.
 Survey, lands not to be conveyed until payment of cost of. Section 21.

CALIFORNIA AND OREGON RAILROAD COMPANY (see "Oregon and California").

CENTRAL BRANCH UNION PACIFIC RAILROAD COMPANY (see Pacific Railroad acts).

CENTRAL PACIFIC RAILROAD COMPANY (see Pacific Railroad acts).

DENVER PACIFIC RAILWAY AND TELEGRAPH COMPANY.

Act of March 3, 1869.

- Bonds (subsidy), not entitled to. Section 3.
 Extension of road, to form continuous line from Kansas City to Cheyenne. Section 2.
 Laws to apply. Section 2.
 Mortgage of road, authorized. Section 3.
 Operation of road, to be the same as if constructed by Union Pacific Railway Company, Eastern Division, but the latter not authorized to fix rates of tariff. Section 2.
 Patents, for alternate sections of land. Section 3.
 Rates, Union Pacific Railway Company, Eastern Division, not authorized to fix. Section 2.
 Right of way, granted by Union Pacific Railway Company, Eastern Division. Section 1.
 Union Pacific Railway Company, Eastern Division, may contract with, for construction of railroad and telegraph line between Denver and Cheyenne. Section 1.

HANNIBAL AND ST. JOSEPH RAILROAD COMPANY.

Act of July 1, 1862.

- Company, on filing assent to this act, may unite with others in building road on equal terms. Section 10.
 Extension of road authorized. Section 13.

IRON MOUNTAIN RAILROAD (see "St. Louis, Iron Mountain and Southern" Railroad Company).

KANSAS PACIFIC RAILWAY COMPANY.

Act of March 3, 1879.

- Army, transportation of, settlements of accounts. Section 1.
 Mails, settlement of accounts for transportation services. Section 1.

Joint resolution, March 3, 1869.

Name changed from "Union Pacific Railway Company, Eastern Division." Section 1.

Act of March 3, 1879.

Post-Office Department, settlement of accounts for transportation services. Section 1.
 Transportation services (United States), settlement of accounts. Section 1.

LEAVENWORTH, PAWNEE AND WESTERN RAILROAD COMPANY (*see* Union Pacific Railroad Company, Eastern Division).

NORTHERN PACIFIC RAILROAD COMPANY.

Act of July 2, 1864.

Agricultural lands may be selected in lieu of mineral lands. Section 3
 Annual reports, verification of. Section 13.
 Assignment of grant by previously aided road. Section 2.

Resolution of May 31, 1870.

American iron or steel only shall be used. Section 1.

Act of June 25, 1868.

Annual reports to be made at the same time as Union Pacific. (Repealed, act of June 19, 1878.)

Act of July 2, 1864.

Branch line to Portland, Oregon, authorized to be constructed. Section 1.
 Bonds, first-mortgage, to be issued without the consent of Congress. Section 10.
 By-laws, directors empowered to make. Section 15.

Joint resolution, March 1, 1869.

Bonds, first-mortgage, Congress consents to the issue of. Section 1.

Joint resolution, April 10, 1869.

Branch line, Portland to Puget Sound, not entitled to bonds or lands. Section 1.
 Bonds, subsidy, not entitled to, for construction of branch line. Section 1.

Resolution, May 31, 1870.

Bonds, first-mortgage, issue of, authorized. Section 1.

Act of July 2, 1864.

Capital stock, \$100,000,000, subscriptions to, first meeting of subscribers. Section 1.
 Capital stock, who may subscribe. Section 10.
 Capital stock, directors to require payment of subscriptions; if forfeited, may be redeemed. Section 16.
 Capital stock, act to be null and void unless \$2,000,000 are subscribed within two years. Section 19.
 Claims, barred if not made within six years. Section 7.
 Company to accept terms within two years. Section 12.
 Company authorized to accept other grants and franchises. Section 17.
 Completion of road, by July 4, 1876, time extended. (*See* Joint resolution, May 7, 1868, and Joint resolution, July 1, 1868.) Section 8.
 Completion of road, Congress may insure. Section 9.
 Commissioners, board appointed, first meeting of; officers, shall deliver to directors all properties. Section 1.
 Commissioners, to examine road; President of the United States shall appoint three; report of. Section 4.
 Connections with other roads. Section 5.
 Consent of State legislatures to be obtained. Section 18.
 Construction, materials for, may be taken from adjacent lands. Section 2.
 Congress, powers of, over legislation. Section 20.

Joint resolution, May 7, 1866.

Completion of road, time extended two years. Section 2.

Joint resolution, July 1, 1868.

Completion of road, time extended to July 4, 1879. Section 1.

Act of July 2, 1864.

Damages, for lands taken, to be determined by commission. Section 7.
Depots, turnouts, station houses, etc., company authorized to take necessary lands. Section 7.
Directors, thirteen shall be elected by stockholders; shall receive from commissioners all properties. Section 1.
Directors, shall elect officers. Section 14.
Directors, terms of office; empowered to make by-laws, rules, and regulations; to fill vacancies in board; to appoint engineers, agents, etc.; to require payment of subscriptions to capital stock, and prescribe terms of redemption of forfeited stock. Section 16.

Joint resolution, May 7, 1866.

Extension of time for completion of road, two years. (See Joint resolution, July 1, 1868.) Section 2.

Act of July 2, 1864.

Franchises (other), company authorized to accept. Section 17.
First-class railroad, shall be constructed. Section 5.
Forfeited stock, may be redeemed on terms prescribed by directors. Section 16.

Joint resolution, March 1, 1869.

First-mortgage bonds (see "Bonds, first-mortgage").

Act of July 2, 1864.

Grant of land (see "Land grant").
Grants, made subject to certain conditions. Section 8.
Grants (other), company authorized to accept. Section 17.
Gauge, shall be uniform. Section 5.
Government lands, not to be sold for less than \$2.50 per acre. Section 6.
Incorporation of company. Section 1.
Indian titles shall be extinguished by the United States. Section 2.
Land grant, 40 sections per mile in Territories, and 20 sections in States. Section 3.
Land grant, shall be deducted if route is upon line of any other aided road; road having previous grant may assign. Section 3.
Lands in lieu of those reserved. Section 3.
Land limits. Section 3.
Lands in Minnesota, proviso regarding. Section 4.
Lands to be surveyed as fast as construction of road may require. Section 6.
Lands (Government) not to be sold for less than \$2.50 per acre. Section 6.
Lands necessary for construction of road, company authorized to take; 200 feet on each side; damages to be determined by commission. Section 7.
Lands unoccupied, or when held by persons subject to legal disability; proceedings. Section 7.
Line of road. Section 1.

Joint resolution, April 10, 1869.

Lands, additional, for branch line, not entitled to. Section 1.

Resolution, May 31, 1870.

Lands, indemnity; limits, 60 miles on each side of road. Section 1.
Lands unsold and not mortgaged; subject to settlement at not over \$2.50 per acre, five years after completion of road. Section 1.

Act of July 2, 1864.

- Materials for construction, may be taken from adjacent lands. Section 2.
 Military road, shall be. Section 11.
 "Mineral" lands not granted; agricultural lands may be selected in lieu of. Section 3.
 "Mineral," does not include iron or coal. Section 3.
 Minnesota lands, proviso. Section 4.
 Mortgage, to be filed and recorded in office of Secretary of Interior. Section 1.
 Officers, election of, by directors. Section 14.
 Officers, terms of. Section 15.
 Post route, road shall be. Section 11.

Joint resolution, March 1, 1869.

- "Puget Sound," meaning of term. Section 1.

Act of July 2, 1864.

- Rails to be of American iron. Section 5.
 Report (*see* "Annual report").
 Right of way; 200 feet in width on each side of road; exempt from taxation. Section 2.
 Road having previous grant may assign. Section 3.
 Road previously built, proviso. Section 4.
 Road to be constructed as a first-class railroad. Section 5.
 Road to be completed by July 4, 1876 (*see* Joint resolution, May 7, 1866, and Joint resolution, July 1, 1868); time extended. Section 8.
 Road, Congress may insure completion of. Section 9.
 Route, if upon line of any other aided road, former grant shall be deducted. Section 3.

Joint resolution, May 7, 1866.

- Road, time of completion extended two years. Section 2.

Joint resolution, July 1, 1868.

- Road, time for completion extended to July 4, 1879. Section 1.

Act of July 2, 1864.

- State legislatures; consent of to be obtained. Section 18.
 Stock (*see* "Capital stock").
 Stockholders; annual meetings; to elect thirteen directors. Section 1.
 Subscriptions to capital stock; opening of books; first meeting of subscribers. Section 1.
 Subscriptions to capital stock; directors to require payment of. Section 16.
 Subscriptions to capital stock; act to be void unless \$2,000,000 are subscribed within two years. Section 19.
 Survey of lands; as fast as construction of road may require. Section 6.
 Transportation (United States); charges for. Section 5.
 Transportation (United States); Congress may restrict charges. Section 11.
 Telegraph line; charges for Government service. Section 5.
 United States shall extinguish Indian titles. Section 2.
 Unoccupied lands, proceedings in regard to; claims barred if not made within six years. Section 7.
 Vacancies in board, directors empowered to fill. Section 15.

NEW ORLEANS, BATON ROUGE, AND VICKSBURG RAILROAD COMPANY.

Act of March 3, 1871.

- Completion of road within five years. Section 22.
 Connection with Texas and Pacific Railway. Section 22.
 Land grant, to aid in construction, 20 sections per mile in State of Louisiana Section 22.
 Lands selected shall be withdrawn from market. Section 22.
 Patents, issue of, for lands withdrawn from market. Section 22.
 Right of way. Section 22.

OREGON SHORT LINE RAILWAY COMPANY.

Act of August 2, 1882.

Created a railroad corporation in Territories of Utah, Idaho, and Wyoming. Section 1.

OREGON AND CALIFORNIA RAILROAD COMPANY.

Act of April 10, 1869.

Assent of company to act may be filed within one year. Section 1.
Acquired rights not affected. Section 1.

Act of July 25, 1866.

“Company,” what to include. Section 9.
Completion of road; company first completing its part may continue with the consent of the State. Section 1.
Completion of road, July 1, 1875. Section 6.
Commissioners, appointment of, to examine road; to report under oath. Section 4.
Construction, materials for, may be taken from adjacent lands. Section 3.
Discrimination, none to be made. Section 7.
Failure to comply with conditions, act to be void. Section 8.
Gauge to be same as Central Pacific Railroad. Section 6.
Grant of land (*see* Land grant).
Homestead laws, provision relating to settlers under. Section 2.
Land grant, 20 sections per mile, if sold or occupied; limits; to be withdrawn from sale when maps of surveys are filed; to be applied to building roads; sale of, and price; settlers under preemption laws and homestead act. Section 2.
Land grant, condition of. Section 5.
Laws of respective States to govern companies. Section 9.
Line of road. Section 1.

Act of April 10, 1869.

Land grant, not more than one company entitled to. Section 1.
Lands, sale of, how and to whom. Section 1.

Act of July 25, 1866.

Mineral lands; not granted. Section 10.
“Mineral” not to include coal and iron. Section 10.
Operation of road as one continuous line. Section 7.
Patents, conditions of issue. Section 4.
Penalties, for neglect to keep road and telegraph line in repair. Section 8.
Preemption laws, provision relating to settlers under. Section 2.
Public highway, railroad to be. Section 5.
Public lands, when road does not pass through, consent of States to be obtained by companies. Section 11.
Right of way granted. Section 3.
Road to be kept in repair; penalty for neglect. Section 8.
Road, when passing through States, consent of, to be obtained by companies. Section 11.

Act of April 10, 1869.

Rights acquired; not affected. Section 1.

Act of July 25, 1866.

States, consent of, to be obtained by companies where road and telegraph line do not pass through public lands. Section 11.
State laws to govern companies. Section 9.
Settlers under preemption laws and homestead act. Section 2.
Transportation; rates shall be fair and reasonable. Section 5.
Transportation of property and troops of the United States shall be at cost of companies. Section 5.
Telegraph line; to be kept in repair; penalty for neglect. Section 8.
Telegraph line; when passing through States, consent of, to be obtained by companies. Section 11.

"PACIFIC RAILROAD ACTS."

Act of July 1, 1862.

Annual reports to be made by companies to the Secretary of the Treasury. Section 20. (Repealed, 20 Stat., 169.) See section 1, act of June 25, 1868, and Thurman Act.

Assent of company to this act shall be filed in Department of Interior. Section 7.

Amendment of July 2, 1864.

Affidavit of Central Pacific Railroad Company to be filed in California. Section 6.

Appraisal of property (right of way). Section 3.

Appeal from assessment of damages or appraisal of property (right of way), bonds on, costs of, title after. Section 3.

Assessment of damages (right of way). Section 3.

Assessments on stockholders. Section 2.

Act of March 3, 1865.

Assignment by Central Pacific to Western Pacific Railroad Company to build a railroad and telegraph line between San Jose and Sacramento confirmed. Section 2.

Act of June 25, 1868.

Annual reports to be made to the Secretary of the Interior, when, what to contain. Section 1. (Repeal of section 20, act of 1862.)

Joint resolution, April 10, 1869.

Attorney-General authorized to institute necessary suits. Section 3.

Attorney-General to investigate whether charters of Union Pacific and Central Pacific Railroad companies have not been forfeited. Section 4.

Act of March 3, 1873.

Attorney-General shall bring suit in equity against the Union Pacific Railroad Company *et al.* for unpaid subscriptions to capital stock, etc. Section 4.

Act of June 22, 1874.

Attorney-General shall bring suit for 5 per cent of net earnings due and unpaid. Section 1.

Act of March 3, 1875.

Army, transportation of; no money shall be paid by the United States to any railroad company constructed by the aid of a grant of public land on condition that such railroad should be "a public highway;" company may sue in Court of Claims, provided claim is not barred by statute of limitations; either party shall have right of appeal to Supreme Court. Section 1.

Act of April 30, 1878.

Army, transportation of. Section 1.

Act of May 7, 1878 (Thurman Act).

Attorney-General shall institute proceedings against the companies. Section 10.

Attorney-General shall enforce forfeitures. Section 11.

Act of June 19, 1878.

Auditor of Railroad Accounts:

Application of act. Section 6.

Companies to report. Section 4.

Date of effect, July 1, 1878. Section 7.

Duties of Auditor. Section 3.

Organization of Bureau. Section 2.

Penalty for neglect or refusal of companies to report. Section 5.

Act of March 3, 1879.

Accounts of Pacific railroads (Post-Office Department), settlement of. Section 1.

Act of March 3, 1881.

"Auditor of Railroad Accounts," title changed to Commissioner of Railroads, salary of. Section 1.

Act of June 30, 1882.

Army, payment to land-grant railroads for transportation of. Section 1.

Act of July 1, 1862.

Bond, commissioners' treasurer. Section 1.

Bonds, first-mortgage, when and how paid. Section 6.

Bonds, subsidy, issue of, as work proceeds; lien of, to be made subordinate. Section 5 (*see* sections 5, 8, 10, and 11, amendment of 1864).

Bonds, double, between the mountains and treble over the Rockies and Sierras. Section 11.

Bonds, deliverable on account of construction; reservation of 25 per cent. Section 17. (Repealed, section 7, act of 1864.)

Bond and interest account, 5 per cent of net earnings shall be applied in payment of. Section 6.

Books, for subscriptions to capital stock, to be opened in principal cities. Section 1 (*see* section 2, amendment of 1864).

Books and property, to be delivered to directors. Section 1.

By-laws, to be made by stockholders. Section 1.

Amendment of July 2, 1864.

Bridges, conditions of construction. Section 9.

Bonds, first-mortgage, to have priority of lien over those of the United States. Section 10 (*see* section 5, act of 1862; also, section 1, act of 1865).

Bonds, already issued by companies, provision for. Section 11.

Bonds, outstanding, affidavit of president and secretary to be filed in the Department of the Interior. Section 11.

Bonds, subsidy, partial issue of, on uncompleted work. Section 8 (*see* section 11, act of 1862).

Bonds, restrictions upon issue of. Section 7.

Bonds, shall not be issued on account of any road prior to act of 1862. Section 11.

Bonds, shall not be issued to Leavenworth and Lawrence roads. Section 12.

Bonds, shall not be issued to Union Pacific Railroad Company, eastern division, for construction east of the Rocky Mountains until completion of said road from Omaha to the 100th meridian. Section 12 (*see* section 1, act of July 3, 1866).

Act of March 3, 1865.

Bonds, first-mortgage, Central Pacific, Western Pacific, Union Pacific, and Union Pacific, eastern division, may issue 100 miles in advance of completed line. Section 1 (*see* section 10, act of 1864).

Joint resolution, April 10, 1869.

Bonds (United States), President authorized to withhold sufficient to secure completion of road. Section 3.

Act of February 24, 1871.

Bonds authorized to be issued by the Union Pacific Company, for construction of bridge across the Missouri River at Omaha. Section 1.

Act of April 30, 1878.

Bonds (United States), interest on, proviso in deficiency appropriation. Section 1.

Act of May 7, 1878 (Thurman Act).

Bonds, subsidy; amount of, loaned by United States:

Central Pacific Railroad Company, \$25,885,125.

Western Pacific Railroad Company, \$1,970,560.

Union Pacific Railroad Company, \$27,236,512. (Preamble.)

Bonds, first-mortgage, same amounts as above, issued and disposed of by companies.

Ibid.

Act of July 1, 1862.

Capital stock, amount and number of shares (*see* section 1, amendment of 1864), commissioners shall receive subscriptions to, directors may require payments of. Section 1.

"Company," meaning of term. Section 15.

Companies shall have power to make by-laws. Section 1.

Companies may unite in building road on equal terms. Sections 10 and 16 (*see* section 16, amendment of 1864).

Companies named in section 19 may arrange with telegraph companies now existing. (*See* section 15, amendment of 1864.)

Commissioners' treasurer shall give bond. Section 1.

Commissioners first meeting to be held in Chicago. Section 1.

Commissioners, appointment and meetings of, shall receive subscriptions to capital stock, shall call meetings of stockholders, shall elect directors. Section 1 (*see* section 13, amendment of 1864).

Commissioners, shall examine road on completion of 40 miles. Section 4 (changed to 20, section 6, amendment of 1864).

Commissioners, vacancies in board shall be filled by the President of the United States. Section 4 (*see* section 6, amendment of 1864).

Compensation for services rendered the United States, rates shall be fair and reasonable. Section 6.

Completion of road, time extended. Section 7 (*see* section 5, act of 1864).

Completion of road, main lines to be finished in 1876. Section 17 (*see* sections 5 and 7, amendment of 1864).

Completion of road (Kansas company), time of doing work. Section 10 (*see* section 5, amendment of 1864).

Congress may compel speedy completion of road. Section 17.

Congress may reduce rates of fare, when net earnings, after sundry deductions, shall exceed 10 per cent. Section 18.

Connections with other roads. Section 15.

Consolidation of companies. Sections 10 and 16 (*see* section 16, amendment of 1864).

Amendment of July 2, 1864.

Capital stock (Union Pacific), shares changed from \$1,000 to \$100. Section 1.

Capital stock, shall not be increased; deemed personal property. Section 2.

Coal, not included in term "mineral lands." Section 4.

Commissioners, President of the United States authorized to appoint three. Section 6 (*see* section 4, act of 1862).

Companies, may consolidate. Section 16 (*see* sections 10 and 16, act of 1862).

Connection of roads west of initial point. Section 9.

Completion of road, Central Pacific, required to complete 25 miles per year; four years to State line. Section 5.

Completion of road, when Central Pacific, shall reach eastern line of California, may go on 150 miles if Union Pacific is not met. Section 16 (*see* section 10, act of 1862, and section 2, 1866).

Consolidation of companies. Section 16 (*see* section 10 and 16, act of 1862).

Consolidated companies may build portion of line left uncompleted by any company; powers and duties of. Section 16.

Joint resolution, April 10, 1869.

Commissioners, appointment of, by the President to examine and report upon roads; expenses and pay of. Section 2.

Act of March 3, 1873.

Capital stock, Attorney-General shall bring suit in equity for unpaid subscriptions. Section 4.

Act of May 7, 1878 (Thurman Act).

Compensation for services rendered the United States; amount retained; how applied. Section 2.

Act of March 3, 1881.

Commissioner of Railroads, title changed from "Auditor of railroad accounts." Section 1.

Act of July 1, 1868.

Directors, thirteen shall be elected by commissioners, shall have charge of books and property, two (additional) shall be appointed by the President of the United States (altered to five, section 13, act of 1864), qualifications of (amended by section 1, act of 1864), shall have power to appoint agents, to require payment of subscriptions to capital stock. (See section 2, amendment of 1864.) Section 1. Directors, term of office. Section 1 (see section 14, amendment of 1864).

Amendment of July 2, 1864.

Damages (right of way), assessment of, how disposed of. Section 3.

Directors, fifteen to be elected by the stockholders and five to be appointed by the President of the United States. Section 13 (see section 1, act of 1862).

Directors (Government), one to be placed on each standing committee of the company and one on each special committee. Section 13.

Directors (Government), duties of. Section 13.

Directors, time and place of election, term of office. Section 14 (see section 1, act of 1862).

Act of March 3, 1873.

Directors of Union Pacific Railroad Company shall not be interested in any contract except as provided. Section 4.

Dividends shall not be made but from actual net earnings. Section 4.

Act of May 7, 1878 (Thurman Act).

Dividends, when prohibited, penalty for violation. Section 6.

Act of July 1, 1862.

Fare, rates may be reduced by Congress under certain circumstances. Section 18.

Five per cent of net earnings shall be applied in payment of bonds and interest. Section 6.

First-mortgage bonds (see "Bonds, first-mortgage").

Amendment of July 2, 1864.

Failure of one company not to affect others. Section 7. (See section 17, act of 1862.)

Ferries, condition of construction. Section 9.

First-mortgage bonds (see "Bonds, first mortgage").

Act of June 22, 1874.

Five per cent of net earnings shall be demanded by the Secretary of the Treasury. Section 1.

Act of May 7, 1878 (Thurman act).

Forfeitures by companies for failure to perform requirements, how enforced. Section 11.

Act of July 1, 1862.

Grant of land, alternate sections. Section 3. (See section 4, amendment of 1864.)

Government bonds (see "Bonds, subsidy").

Government transportation, rates shall be fair and reasonable and applied to payments of bonds and interest. Section 6.

Government transportation, half to be paid in cash. Section 6. (See section 5, amendment of 1864, and section 9, act of March 3, 1871.)

Amendment of July 2, 1864.

Grant of land doubled, restrictions upon. Section 4.
 Government bonds (*see* "Bonds, subsidy").
 Government lien, to be subordinate. Section 10.
 Government transportation, one-half to be applied to payment of bonds. Section 5.

Act of May 7, 1870.

Grant of certain sections of land in locating termini of road (Central Pacific and Union Pacific companies). Section 1.

Act of March 3, 1871.

Government transportation, one-half to be paid in cash. Section 9. (*See* section 6, act of 1862, and section 5, amendment of 1864.)

Act of March 3, 1875.

Government transportation; no money shall be paid to any railroad constructed by the aid of a grant of public land on condition that such road should be "a public highway," etc.; company may sue in Court of Claims; statute of limitations. Section 1.

Act of July 1, 1862.

Indian titles, United States shall extinguish. Section 2. (*See* section 18, amendment of 1864.)

Amendment of July 2, 1864.

Iron, not included in term "mineral lands." Section 4.

Act of March 3, 1873.

Interest on bonds of the United States not reimbursed; Secretary of Treasury authorized to withhold payments for transportation; companies may bring suit in Court of Claims; causes on appeal to United States Supreme Court to have precedence. Section 2.

Act of April 30, 1878.

Interest on United States bonds to be deducted before payment for transportation. Section 1. (Proviso in deficiency appropriation.)

Act of May 7, 1878 (Thurman act).

Interest paid by United States on subsidy bonds: Central Pacific and Western Pacific companies, \$13,500,000; Union Pacific Railroad Company, \$10,000,000. (Preamble.)

Interest on companies' obligations; when 75 per cent of net earnings are insufficient to pay, Secretary of Treasury may remit so much of the 25 per cent of net earnings required to be paid into the sinking fund as may have been applied in payment of interest. Section 5.

Act of March 3, 1887.

Investments of sinking funds, how made. Section 5.

Act of May 6, 1870.

Junction point of Union Pacific and Central Pacific railroads, established northwest of station at Ogden. Section 1.

Act of July 1, 1862.

Land grants, alternate sections. Section 3 (*see* section 4, amendment of 1864).
 Land patents, conditions of issue. Section 4.
 Lands within 15 miles of designated route to be withdrawn from sale, etc. Section 7 (changed to 25, section 4, amendment of 1864).
 Line of road. Sections 8 and 10.
 Location of road. Section 1.
 Location of road at State lines and one-hundredth meridian, provisions relating to. Section 12.

Amendment of July 2, 1864.

Land grants, doubled. Section 4 (*see* section 3, act of 1862).
 Land, not to be granted to any road prior to act of 1862. Section 11.
 Lands, not to be conveyed to any company until payment of cost of survey. Section 21 (*see* section 4, act of 1862, and section 6, this amendment).
 Lands, exempted from operation of act. Section 4.
 Lands, patented. Section 6 (*see* section 4, act of 1862).
 Lands unoccupied, how acquired. Section 3.
 Leavenworth road, if built to one-hundredth meridian, may proceed in default of Union Pacific. Section 12.
 Line of road, through "intervening States." Section 6 (*see* section 10, act of 1862).

Act of May 6, 1870.

Land, grant of certain sections to locate termini of road (Central Pacific and Union Pacific). Section 1.
 Land, reserved for schools, price of. Section 1.

Act of May 7, 1878 (Thurman act).

Liabilities of Central Pacific and Union Pacific Railroad companies, exclusive of interest, \$184,000,000. (Preamble.)
 Lien of United States on all properties of companies. Section 9.

Act of July 1, 1862.

Map designating route of road, to be filed in the Department of the Interior. Section 7 (*see* section 5, amendment of 1864).
 Minerals, conditions of grant. Section 3 (*see* section 4, amendment of 1864).

Amendment of July 2, 1864.

"Mineral lands," coal and iron not included. Section 4.

Act of July 3, 1866.

Map of Union Pacific (Eastern Division) Railway Company, time for filing extended. Section 1.

Act of March 3, 1837.

Mortgage, United States; proceedings necessary to protect. Section 4.

Act of July 1, 1862.

Name and title of road. Section 1.
 Net earnings, 5 per cent shall be applied to bond and interest account. Section 6.
 Net earnings, when amount shall exceed 10 per cent of cost (after sundry deductions) Congress may reduce rates of fare. Section 18.

Act of March 3, 1873.

Net earnings, in case 5 per cent is not applied according to law, Secretary of Treasury shall withhold payments for Government transportation; companies may bring suit in Court of Claims; causes on appeal to United States Supreme Court shall have precedence. Section 2.

Act of June 22, 1874.

Net earnings, Secretary of Treasury shall demand 5 per cent. Section 1.

Act of May 7, 1878 (Thurman Act).

Net earnings, how ascertained. Section 1.

Net earnings, when 75 per cent are insufficient to pay the annual interest on prior lien of companies' obligations, Secretary of Treasury authorized to remit so much of the 25 per cent thus applied. Section 5.

Act of July 1, 1862.

Officers, to hold for three years. Section 1 (*see* section 14, amendment of 1864).

Act of February 24, 1871.

Omaha Bridge; Union Pacific Railroad Company may issue \$2,500,000 of bonds to construct; Congress may regulate tolls and fares. Section 1.

Act of July 1, 1862.

Patents of land, conditions of issue. Section 4.

Act of May 6, 1870.

Private rights, shall not be affected. Section 1.

Act of March 3, 1875.

"Public highway," conditions of grant in connection with use of roads by the Government of the United States. Section 1.

Act of May 7, 1878 (Thurman Act).

Property of the companies, United States lien on. Section 9.

Proceedings against the companies, when. Section 10.

Act of March 3, 1879.

Pacific railways, settlement of accounts of. Section 1.

Post-Office Department, settlement of accounts of. Section 1.

Act of March 1, 1881.

Post-Office Department, penalty for not providing railway postal cars. Section 1.

Postal cars, penalty for not providing. Section 1.

Act of June 30, 1882.

Payment to land-grant railroads for transportation. Section 1.

Act of March 3, 1887.

Protection of the security of the United States. Section 4.

Act of July 1, 1862.

Rates of fare may be reduced by Congress under certain circumstances. Section 18.

Reports (annual) to be made by companies to the Secretary of the Treasury. Section 20. (Repealed, 20 Stat., 169.) (*See* section 1, act of June 25, 1868, and Thurman Act.)

Reservation of 25 per cent on installments of bonds. Section 17. (Repealed, section 7, amendment of 1864.)

Right of way granted. Section 2 (*see* section 3, amendment of 1864).

Route, location of, at State lines or one hundredth meridian; in case of difference between companies. President of the United States shall determine. Section 12.

Route of road, map to be filed in the Department of the Interior. Section 7.

Road to be used as a continuous line. Section 12 (*see* section 15, amendment of 1864).

Road, other companies may connect with. Section 15.

Roads named in Section 19, may arrange with the telegraph companies now existing (*see* section 15, amendment of 1864).

Amendment of July 2, 1864.

Reservation of bonds, section 17, act of 1862, repealed.

Right of way; additional; absentees; appraisal of property; appeal; bonds on costs of; title after; damages, how disposed of. Section 3 (*see* section 2, act of 1862).

Roads may connect west of initial point. Section 9.

Route of road, time for designating and filing map extended one year. Section 5 (*see* section 7, act of 1862).

*Act of June 25, 1868.**

Reports (companies), when to be made and what to contain. Section 1.

Reports (commissioners) to be made to the Department of the Interior. Section 3.

Reports (engineers and other officers) to be furnished annually to the Secretary of the Interior. Section 4 (section 20, act of 1862, repealed).

Act of June 20, 1874.

Roads to be operated as a continuous line; penalty for failure or refusal. Section 1.

Act of June 19, 1878.

Railroad bureau, organization of. Section 2.

Reports, filing of, by railroad companies; repeal of prior laws (section 20, act of 1862, and act of June 25, 1868). Section 1.

Reports of railroad companies; of what to consist. Section 4.

Reports of railroad companies; penalty for refusal to make. Section 5.

Act of March 1, 1881.

Railway post-office car service; penalty for not providing postal cars. Section 1.

Act of July 1, 1868.

State lines, location of road. Section 12.

Stock, capital, amount and number of shares; commissioners shall receive subscriptions to; directors may require payments of. Section 1 (*see* section 2, amendment of 1864).

Stockholders shall have power to make by-laws; commissioners shall call meetings of. Section 1.

Subsidy bonds (*see* "Bonds, subsidy").

Amendment of July 2, 1864.

Stock, capital, shares changed from \$1,000 to \$100. Section 1.

Stock, assessment of stockholders, how paid; shall not be increased; deemed personal property. Section 2.

Subscriptions to capital stock; percentage to be paid; books to be kept open in several cities. Section 2.

Subsidy bonds (*see* "Bonds, subsidy").

Surveys, cost of; land not to be conveyed to any company until payment of. Section 21 (*see* section 4, act of 1862, and section 6, this amendment).

Joint resolution, April 10, 1869.

Stockholders of Union Pacific Railroad Company shall elect a board of directors and establish their general office. Section 1.

Act of May 6, 1870.

School lands reserved. Section 1.

Act of March 3, 1873.

Subscriptions to capital stock unpaid; Attorney-General shall bring suit in equity. Section 4.

Act of May 7, 1878. (Thurman Act.)

Sinking fund established. Section 3 (amended by section 5, act of March 3, 1887).
 Sinking fund, credits and payments to. Section 4.
 Sinking fund, application of. Section 8.

Act of March 3, 1887.

Sinking funds, investment of. Section 5.

Act of July 1, 1862.

Track to be of uniform width. Section 12.
 Transportation services rendered the United States; rates shall be fair and reasonable; half to be paid in cash. Section 6 (see section 5, amendment of 1864).
 Telegraph companies now existing; roads named in section 19 may arrange with (see section 15, amendment of 1864).
 Treasurer to give bond. Section 1.
 Timber, conditions of grant. Section 3.

Amendment of July 2, 1864.

Transportation services rendered the United States, one-half compensation shall be applied to the payment of bonds issued by the Government. Section 5 (see section 6, act of 1862).
 Telegraphing, penalty for failure to extend facilities to the public. Section 15 (see section 19, act of 1862).
 Timber in land grants to belong to company, with a proviso. Section 4.
 Title to right of way, payment of. Section 3.

Joint resolution, April 10, 1869.

Termini of roads (Union Pacific and Central Pacific) shall be at or near Ogden. Section 1.

Act of May 6, 1870.

Termini of roads, location of (Union Pacific and Central Pacific); grant of certain sections of land. Section 1.

Act of March 3, 1871.

Transportation services rendered the Government by Pacific railroads; one-half compensation to be paid in cash. Section 9.

Act of March 3, 1873.

Transportation services rendered the Government; Secretary of the Treasury authorized to withhold payments for reimbursement of interest and 5 per cent of net earnings; companies may bring suit in Court of Claims; causes on appeal to Supreme Court, United States, shall have precedence. Section 2.

Act of March 3, 1875.

Transportation of property or troops of the United States; no money shall be paid to any railroad constructed by the aid of a grant of public land on the condition that such road should be a "public highway;" companies may bring suit in Court of Claims. Section 1.

Act of April 30, 1878.

Transportation of Army; proviso in deficiency appropriation.

Act of May 7, 1878. (Thurman Act.)

Transportation services rendered the Government; amount retained; how applied. Section 2.

Subsidy bonds double between the mountains.

named of one hundred and fifty miles each, the bonds to be issued to aid in the construction thereof shall be double the number per mile first mentioned, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed: *Provided*, That no more than fifty thousand of said bonds shall be issued under this act to aid in constructing the main line of said railroad and telegraph.

Location at State lines and 100th meridian.

SEC. 12. *And be it further enacted*, That whenever the route of said railroad shall cross the boundary of any State or Territory, or said meridian of longitude, the two companies meeting or uniting there shall agree upon its location at that point, with reference to the most direct and practicable through route, and in case of difference between them as to said location the President of the United States shall determine the said location; the companies named in each State and Territory to locate the road across the same between the points so agreed upon, except as herein provided. The track upon the entire line of railroad and branches shall be of uniform width, to be determined by the President of the United States, so that when completed, cars can be run from the Missouri River to the Pacific Coast; the grades and curves shall not exceed the maximum grades and curves of the Baltimore and Ohio Railroad; the whole line of said railroad and branches and telegraph shall be operated and used for all purposes of communication, travel, and transportation, so far as the public and Government are concerned, as one connected, continuous line; and the companies herein named in Missouri, Kansas, and California, filing their assent to the provisions of this act, shall receive and transport all iron rails, chairs, spikes, ties, timber, and all materials required for constructing and furnishing said first-mentioned line between the aforesaid point, on the one-hundredth meridian of longitude and western boundary of Nevada Territory, whenever the same is required by said first-named company, at cost, over that portion of the roads of said companies constructed under the provisions of this act.

Track to be of uniform width, &c.

To be used as continuous line, &c.

H. & St. J. road may be extended, etc.

SEC. 13. *And be it further enacted*, That the Hannibal and Saint Joseph Railroad Company of Missouri may extend its roads from Saint Joseph via Atchison, to connect and unite with the road through Kansas, upon filing its assent to the provisions of this act upon the same terms and conditions, in all respects, for one hundred miles in length next to the Missouri River, as are provided in this act for the construction of the railroad and telegraph line first mentioned, and may for this purpose use any railroad charter which has been or may be granted by the legislature of Kansas: *Provided*, That if actual survey shall render it desirable, the said company may construct their road, with the consent of the Kansas legislature, on the most direct and practicable route west from Saint Joseph, Missouri, so as to connect and unite with the road leading from the western boundary of Iowa at any point east of the one hundredth meridian of west longitude, or with the main trunk road at said point; but in no event shall lands or bonds be given to said company, as herein directed, to aid in the construction of their said road for a greater distance than one hundred miles. And the Leavenworth, Pawnee, and Western Railroad Company of Kansas may construct their road from Leavenworth to unite with the road through Kansas.

Iowa road from western boundary of Iowa.

SEC. 14. *And be it further enacted*, That the said Union Pacific Railroad Company is hereby authorized and required to construct a single line of railroad and telegraph from a point on the western boundary of the State of Iowa, to be fixed by the President of the United States, upon the most direct and practicable route, to be subject to his approval, so as to form a connection with the line of said company at some point on the one hundredth meridian of longitude aforesaid, from the point of commencement on the western boundary of the State of Iowa, upon the same terms and conditions, in all respects, as are contained in this act for the construction of the said railroad and telegraph first mentioned; and the said Union Pacific Railroad Company shall complete one hundred miles of the road and telegraph in this section provided for, in two years after filing their assent to the conditions of this act, as by the terms of this act required, and at the rate

of one hundred miles per year thereafter, until the whole is completed. *Provided*, That a failure upon the part of said company to make said connection in the time aforesaid, and to perform the obligations imposed on said company by this section and to operate said road in the same manner as the main line shall be operated, shall forfeit to the Government of the United States all the rights, privileges, and franchises granted to and conferred upon said company by this act. And whenever there shall be a line of railroad completed through Minnesota or Iowa to Sioux City, then the said Pacific Railroad Company is hereby authorized and required to construct a railroad and telegraph from said Sioux City upon the most direct and practicable route to a point on, and so as to connect with, the branch railroad and telegraph in this section hereinbefore mentioned, or with the said Union Pacific Railroad, said point of junction to be fixed by the President of the United States, not further west than the one hundredth meridian of longitude aforesaid, and on the same terms and conditions as provided in this act for the construction of the Union Pacific Railroad as aforesaid, and to complete the same at the rate of one hundred miles per year; and should said company fail to comply with the requirements of this act in relation to the said Sioux City railroad and telegraph, the said company shall suffer the same forfeitures prescribed in relation to the Iowa branch railroad and telegraph hereinbefore mentioned.

U. P. R. R. Co.
required to con-
struct Sioux City
road. Sec. 17,
act of 1864.

Sec. 15. *And be it further enacted*, That any other railroad company now incorporated, or hereafter to be incorporated, shall have the right to connect their road with the road and branches provided for by this act, at such places and upon such just and equitable terms as the President of the United States may prescribe. Wherever the word company is used in this act it shall be construed to embrace the words their associates, successors, and assigns, the same as if the words had been properly added thereto.

Other compa-
nies may con-
nect, &c.

Word company
explained.

Sec. 16. *And be it further enacted*, That at any time after the passage of this act all of the railroad companies named herein, and assenting hereto, or any two or more of them, are authorized to form themselves into one consolidated company; notice of such consolidation, in writing, shall be filed in the Department of the Interior, and such consolidated company shall thereafter proceed to construct said railroad and branches and telegraph line upon the terms and conditions provided in this act.

Companies au-
thorized to con-
solidate. See sec.
16, act of 1864.
Also sec. 10 of
this act.

Sec. 17. *And be it further enacted*, That in case said company or companies shall fail to comply with the terms and conditions of this act, by not completing said road and telegraph and branches within a reasonable time, or by not keeping the same in repair and use, but shall permit the same, for an unreasonable time, to remain unfinished, or out of repair and unfit for use, Congress may pass any act to insure the speedy completion of said road and branches, or put the same in repair and use, and may direct the income of said railroad and telegraph line to be thereafter devoted to the use of the United States to repay all such expenditures caused by the default and neglect of such company or companies: *Provided*, That if said roads are not completed so as to form a continuous line of railroad, ready for use, from the Missonri River to the navigable waters of the Sacramento River, in California, by the first day of July, eighteen hundred and seventy-six, the whole of all of said railroads before mentioned and to be constructed under the provisions of this act, together with all their furniture, fixtures, rolling stock, machine shops, lands, tenements, and hereditaments, and property of every kind and character, shall be forfeited to and be taken possession of by the United States: *Provided*, That of the bonds of the United States in this act provided to be delivered for any and all parts of the roads to be constructed east of the one hundredth meridian of west longitude from Greenwich, and for any part of the road west of the west foot of the Sierra Nevada Mountain[s], there shall be reserved in each part and installment, twenty-five per centum, to be and remain in the United States Treasury, undelivered, until said road and all parts thereof provided for in this act are entirely completed; and of all the lands provided to be delivered for the said road, between the two points aforesaid, there shall be reserved out of each installment fifteen per

Congress may
compel speedy
completion of
road.

Main lines to
be finished in
1876. See secs. 5
and 7, act of 1864.

Repealed. See
sec. 7, act of 1864.

- Contracts for construction of road, shall not be made by directors. Section 20.
- Debts of purchased roads, greater in amount than the cash value of assets received, shall not be assumed. Section 6.
- Depots, companies crossing road shall have lands for. Section 2.
- Directors, number of, term of office, shall elect officers. Section 2.
- Directors, shall not contract for construction of any part of road. Section 20.
- Discriminations against connecting roads, shall not be made. Section 15.
- Election of officers. Section 2.
- Franchises and rights of purchased roads, shall vest in Texas Pacific Railroad Company, obligations shall be assumed except debts greater in amount than the cash value of assets received. Section 6.
- Grant of land (*see* "Land grant").
- Grounds for stations, etc., not exceeding 40 acres of land at any one point, granted. Section 8.
- Homestead acts, provisions of extended to other lands. Section 12.
- Incorporation of company. Section 1.
- Interest on bonds, issued by company, payable in gold. Section 14.
- Iron, not included in "Mineral." Section 9.
- Land bonds (*see* "Bonds").
- Lands, acquisition of. Section 5.
- Lands, granted for stations, buildings, etc., not exceeding 40 acres at any one point. Section 8.
- Land grant, 40 sections per mile in Territories, and 20 sections per mile in California. Section 9.
- Land granted; if disposed of, other lands may be selected; limits of; provision as to Mexican boundary. Section 9.
- Lands granted in California. Section 9.
- Lands granted and not sold or disposed of in three years, to be subject to settlement. Section 9.
- Lands, patents shall issue on completion of each 20-mile section. Sections 12 and 18.
- Lands, withdrawal of, from preemption and sale. Section 12.
- Lands, disposal of, to other companies crossing road. Section 21.
- Liens (prior), not to be impaired. Section 6.
- Line of road. Section 1.
- Map of road, to be filed within two years. Section 12.
- Materials for construction of road may be taken from adjacent lands. Section 8.
- Mexican boundary, provisions as to. Section 9.
- "Military post road," railroad declared to be. Section 19.
- "Mineral," not to include iron or coal. Section 9.
- Mortgage of road, franchises, grants, and acquired lands as security for issue of bonds, to be filed and recorded in Department of Interior. Section 11.
- Mortgages issued by company, amount of, how signed, interest payable in gold. Section 14.
- Mortgaged lands, limit of construction and land bonds. Section 14.
- Name of road changed from "Texas Pacific Railroad Company" to The Texas and Pacific Railway Company (*see* Act of May 2, 1872). Section 1.
- New Orleans, Baton Rouge, and Vicksburg Railroad Company, provision as to. Section 22.
- Officers, election of. Section 2.
- Obligations of purchased roads shall be assumed, except debts greater in amount than the cash value of the assets received. Section 6.
- Patents shall be issued on completion of each 20 miles of road. Sections 12 and 18.
- Preemption of lands. Section 12.
- Private lands, right of way shall be secured in accordance with law. Section 10.
- Purchased roads, rights, franchises, etc., to vest in Texas Pacific Railroad Company, obligations to be assumed, except debts greater in amount than the cash value of assets received. Section 6.
- Rates shall not exceed prices fixed by Congress on Union Pacific and Central Pacific. Section 15.
- Rates (Government) shall be fair and reasonable. Section 19.
- Rails, American ore shall be used in manufacture of. Section 16.
- Railroad declared a "military post road." Section 19.
- Reports (*see* "Annual reports").
- Right of way, 200 feet in width on each side of road. Section 8.
- Right of way through lands of private persons, how secured. Section 10.
- Right of way by companies crossing road. Section 21.
- Rights, franchises, etc., of purchasing roads, to vest in Texas Pacific Railroad Company. Section 6.

Road, line of. Section 1.
 Road, crossed by other companies; lands and right of way. Section 21.
 Roads purchased, rights, franchises, etc., to vest in Texas Pacific Railroad Company. Section 6.
 Route to be designated within two years. Section 12.
 Rules, authority to make and enforce. Section 7.
 Stations, buildings, etc.; land granted, not exceeding 40 acres at any one point. Section 8.
 San Diego Bay; "ship's channel" not to be construed as conveying special right to water front. Section 9.
 Settlement of lands granted and not sold or disposed of within three years, authority for. Section 9.
 "Ship's channel;" not to be construed as conveying special right to water front in San Diego Bay. Section 9.
 Stock (*see* "Capital stock").
 Stockholders; to organize company; annual meetings. Section 2.
 Southern Pacific Railroad Company of California may construct a road to connect the Texas Pacific Railroad with San Francisco. Section 23.
 Subscriptions to capital stock; opening of books. Section 2.
 Transportation (United States); not to be impeded. Section 19.

TEXAS AND PACIFIC RAILWAY COMPANY.

Act of May 2, 1872.

American ore to be used in manufacture of iron and steel rails; with a proviso. Section 4.
 Bonds (construction), issue of; limitation. Section 2.
 Bonds (land), how secured; limitation. Section 2.
 Bonds, proceeds of; how only to be applied. Section 3.

Act of March 3, 1873.

Bonds issued by company; may be payable in gold or other lawful money. Section 1.

Act of June 22, 1874.

Bonds (construction); may be secured by new mortgages; limit of. Section 1.

Act of May 2, 1872.

Capital stock, proceeds of; how only to be applied. Section 3.
 Completion of road, time of; Congress may insure. Section 5.
 Construction bonds (*see* "Bonds").

Act of June 22, 1874.

Consolidated roads; shall be deemed and taken as part of Texas and Pacific Railway. Section 1.

Act of May 2, 1872.

Equipment, standard of; same as required of existing Pacific railways. Section 3.
 Franchises, heretofore conferred upon "Texas Pacific Railroad Company;" Texas and Pacific Railway Company shall have, possess, and enjoy. Section 1.
 (Granted lands (*see* "Land grant")).
 Gauge shall be uniform. Section 5.
 Land bonds (*see* "Bonds").
 Land grant; may be included in mortgage to secure construction bonds; not revived, enlarged, extended, or created by this act. Section 2.
 Liens (prior); not affected. Section 3.
 Line of road. Section 5.

Act of June 22, 1874.

Lands (public), no further rights granted. Section 1.

Act of May 2, 1872.

Mortgages, amount of land bonds shall not exceed \$2.50 per acre. Section 2.
Mortgages to be filed and recorded in Department of Interior, shall not impair or affect prior lien. Section 3.

Act of March 3, 1873.

Mortgages (former) legalized, if other requirements of law have been complied with. Section 1.

Act of June 22, 1874.

Mortgages (new) may be issued to secure construction bonds. Section 1.
Mortgages, on record with Secretary of Interior, may be canceled and mortgages authorized by this act substituted; limit of. Section 1.
Mortgages, shall embrace roads and property of Southern Pacific Railroad Company and of the Southern Transcontinental Railway Company east of Fort Worth. Section 1.

Act of May 2, 1872.

Name of road, changed from "Texas Pacific Railroad Company" to Texas and Pacific Railway Company. Section 1.
Rails, American ore to be used in manufacture of; with a proviso. Section 4.
Rights, privileges, and franchises heretofore conferred upon "Texas Pacific Railroad Company," Texas and Pacific Railway Company shall have, possess, and enjoy. Section 1.
Road, standard of, same as required of existing Pacific railways. Section 3.
Road from San Diego eastward, provision as to. Section 5.
Road, between Marshall and Shreveport, how to be controlled and operated. Section 5.

Act of June 22, 1874.

Rights to public lands, none further granted. Section 1.

Act of May 2, 1872.

Stock (*see* "Capital stock").
Standard of road and equipment, same as required of existing Pacific railways. Section 3.

UNION PACIFIC RAILROAD COMPANY, EASTERN DIVISION (formerly "Leavenworth, Pawnee and Western" Railroad Company).

Amendment of July 2, 1864.

Bonds (subsidy), shall not be issued to. Section 12.
Line of road. Section 12.

Act of March 3, 1869.

Authorized to contract with Denver Pacific Railway and Telegraph Company for construction of road between Denver and Cheyenne, forming a continuous line from Kansas City to Cheyenne. (*See* Denver Pacific Railway and Telegraph Company.)

Joint resolution of March 3, 1869.

Authorized to change its name to the Kansas Pacific Railway Company.

UNION PACIFIC RAILROAD COMPANY. UNION PACIFIC RAILWAY COMPANY.

See Pacific Railroad acts.

WESTERN PACIFIC RAILROAD COMPANY.

See Pacific Railroad acts.

LAWS OF THE UNITED STATES AFFECTING PACIFIC RAILROADS.

ACT OF JULY 1, 1862.

AN ACT to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes. 12 Stat., 489.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Walter S. Burgess, William P. Blodgett, Benjamin H. Cheever, Charles Fosdick Fletcher, of Rhode Island; * * * together with five commissioners, to be appointed by the Secretary of the Interior, and all persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic in deed and in law, by the name, style, and title of "The Union Pacific Railroad Company;" and by that name shall have perpetual succession, and shall be able to sue and to be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal; and the said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph, with the appurtenances, from a point on the one hundredth meridian of longitude west from Greenwich, between the south margin of the Valley of the Republican River and the north margin of the Valley of the Platte River, in the Territory of Nebraska, to the western boundary of Nevada Territory, upon the route and terms hereinafter provided, and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one hundred thousand shares of one thousand dollars each, which shall be subscribed for and held in not more than two hundred shares by any one person, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons hereinbefore named, together with those to be appointed by the Secretary of the Interior, are hereby constituted and appointed commissioners, and such body shall be called the Board of Commissioners of the Union Pacific Railroad and Telegraph Company, and twenty-five shall constitute a quorum for the transaction of business. The first meeting of said Board shall be held at Chicago at such time as the commissioners from Illinois herein named shall appoint, not more than three nor less than one month after the passage of this act, notice of which shall be given by them to the other commissioners by depositing a call thereof in the post-office at Chicago, postpaid, to their address at least forty days before said meeting, and also by publishing said notice in one daily newspaper in each of the cities of Chicago and Saint Louis. Said Board shall organize by the choice from its number of a president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. It shall be the duty of said Board of Commissioners to open books, or cause books to be opened, at such times and in such principal cities in the United States as they or a quorum of them shall determine, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as two thousand shares shall be in good faith subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said Board of Commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened at least thirty days previous to the day of

Name and title

Location, &c.

Amt. and number of shares of stock changed from \$1,000 to \$100. Sec. 1, act 1864.

Comm'rs, how appointed and to hold meeting.

Treasurer to give bond, &c.

Books to be kept open. See sec. 2, 1864.

Comm'rs to call meeting of stock holders.

- To elect directors. See sec. 13, act of 1864. meeting, and such subscribers as shall attend the meeting so called, either in person or by proxy, shall then and there elect by ballot not less than thirteen directors for said corporation; and in such election each share of said capital shall entitle the owner thereof to one vote. The president and secretary of the Board of Commissioners shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioner, treasurer, and secretary shall then deliver over to said directors all the properties, subscription books, and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. At the time of the first and each triennial election of directors by the stockholders two additional directors shall be appointed by the President of the United States, who shall act with the body of directors, and to be denominated directors on the part of the Government; any vacancy happening in the Government directors at any time may be filled by the President of the United States. The directors to be appointed by the President shall not be stockholders in the Union Pacific Railroad Company. The directors so chosen shall, as soon as may be after their election, elect from their own number a president and vice-president, and shall also elect a treasurer and secretary. No person shall be a director in said company unless he shall be a bona fide owner of at least five shares of stock in the said company, except the two directors to be appointed by the President as aforesaid. Said company, at any regular meeting of the stockholders called for that purpose, shall have power to make by-laws, rules, and regulations as they shall deem needful and proper, touching the disposition of the stock, property, estate, and effects of the company, not inconsistent herewith, the transfer of shares, the term of office, duties and conduct of their officers and servants, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the objects of this act, and to do all acts and things touching the location and construction of said road and telegraph. Said directors may require payments of subscription to the capital stock, after due notice, at such times and in such proportions as they shall deem necessary to complete the railroad and telegraph within the time in this act prescribed. Said president, vice-president, and directors shall hold their office for three years, and until their successors are duly elected and qualified, or for such less time as the by-laws of the corporation may prescribe; and a majority of said directors shall constitute a quorum for the transaction of business. The secretary and treasurer shall give such bonds, with such security, as the said board shall from time to time require, and shall hold their office at the will and pleasure of the directors. Annual meetings of the stockholders of the said corporation, for the choice of officers (when they are to be chosen) and for the transaction of annual business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.
- Books and property to be delivered to directors. Directors shall each be owners of five shares of stock changed to fifty. Sec. 1, 1864. Company make by-laws.
- Two directors to be appointed by the President of the U. S. Altered to five. Sec. 13, act of 1864.
- Directors to appoint agents, etc.
- Directors to require payment of subscriptions. Sec. 2, act of 1864. Officers to hold for three years altered by sec. 13, 1864.
- Right of way granted. See sec. 3, 1864.
- U. S. to extinguish Indian titles. Sec. 13, 1864.
- Land grants—alternate sections.
- Sec. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to said company for the construction of said railroad and telegraph line; and the right, power, and authority is hereby given to said company to take from the public lands adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof; said right of way is granted to said railroad to the extent of two hundred feet in width on each side of said railroad where it may pass over the public lands, including all necessary grounds for stations, buildings, workshops, and depots, machine shops, switches, side tracks, turntables, and water stations. The United States shall extinguish as rapidly as may be the Indian titles to all lands falling under the operation of this act and required for the said right of way and grants hereinafter made.
- Sec. 3. *And be it further enacted*, That there be, and is hereby, granted to the said company, for the purpose of aiding in the construction of said railroad and telegraph line, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores

thereon, every alternate section of public land, designated by odd numbers, to the amount of *five* alternate sections per mile on each side of said railroad, on the line thereof, and within the limits of *ten* miles on each side of said road, not sold, reserved, or otherwise disposed of by the United States, and to which a preëmption or homestead claim may not have been attached, at the time the line of said road is definitely fixed: *Provided*, That all *mineral lands* shall be excepted from the operation of this act; but where the same shall contain timber, the timber thereon is hereby granted to said company. And all such lands so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be subject to settlement and preëmption, like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company.

Sec. 4. *And be it further enacted*, That whenever said company shall have completed forty consecutive miles of any portion of said railroad and telegraph line, ready for the service contemplated by this act, and supplied with all necessary drains, culverts, viaducts, crossings, sidings, bridges, turnouts, watering places, depots, equipment furniture, and all other appurtenances of a first-class railroad, the rails and all the other iron used in the construction and equipment of said road to be American manufacture of the best quality, the President of the United States shall appoint three commissioners to examine the same and report to him in relation thereto; and if it shall appear to him that forty consecutive miles of said railroad and telegraph line have been completed and equipped in all respects as required by this act, then, upon certificate of said commissioners to that effect, patents shall issue conveying the right and title to said lands to said company, on each side of the road as far as the same is completed, to the amount aforesaid; and patents shall in like manner issue as each forty miles of said railroad and telegraph line are completed, upon certificate of said commissioners. Any vacancies occurring in said board of commissioners by death, resignation, or otherwise, shall be filled by the President of the United States: *Provided, however*, That no such commissioners shall be appointed by the President of the United States unless there shall be presented to him a statement, verified on oath by the president of said company, that said forty miles have been completed, in the manner required by this act, and setting forth with certainty the points where such forty miles begin and where the same end; which oath shall be taken before a judge of a court of record.

Sec. 5. *And be it further enacted*, That for the purpose herein mentioned the Secretary of the Treasury shall, upon the certificate in writing of said commissioners of the completion and equipment of forty consecutive miles of said railroad and telegraph in accordance with the provisions of this act, issue to said company bonds of the United States of one thousand dollars each, payable in thirty years after date, bearing six per centum per annum interest (said interest payable semi-annually), which interest may be paid in United States Treasury notes or any other money or currency which the United States have or shall declare lawful money and a legal tender, to the amount of sixteen of said bonds per mile for such section of forty miles; and to secure the repayment to the United States, as hereinafter provided, of the amount of said bonds so issued and delivered to said company, together with all interest thereon which shall have been paid by the United States, the issue of said bonds and delivery to the company *ipso facto* constitute a first mortgage on the whole line of the railroad and telegraph, together with the rolling stock, fixtures, and property of every kind and description, and in consideration of which said bonds may be issued; and on the refusal or failure of said company to redeem said bonds, or any part of them, when required so to do by the Secretary of the Treasury, in accordance with the provisions of this act, the said road, with all the rights, functions, immunities, and appurtenances thereunto belonging, and also all lands granted to the said company by the United States, which, at the time of said default, shall remain in the ownership of the said company, may be taken possession of by the Secretary of the Treasury, for the use and benefit of the United States: *Provided*, This section shall not apply to that part of any road now constructed.

Changed to TEN by sec. 4, 1864.
Changed to TWENTY. Sec. 4, 1864.

Minerals and timber. Sec. 4, 1864.

On completion of forty miles changed to TWENTY by sec. 6, 1864. U. S. commissioners to examine.

Patents of land to issue on completion of 40 miles changed to 20. Sec. 6, 1864.

Vacancies in comm'rs. See sec. 6, act of 1864.

Government bonds. See sec. 8 and 10, act 1864. Now 20 miles. Sec. 10, 1864.

See sec. 11 of this act, for \$2,000 and \$48,000 per mile.

Lien of U. S. bonds made subordinate. See sec. 10, act of 1864.

See sec. 10, act 1864.

Modified. See sec. 5, act of 1864.
Bonds, when and how paid.

Fair and reasonable rates of compensation.

Government transportation—half to be paid in cash. See sec. 5, act of 1864.
Five per cent net earnings.

Assent of company to be filed, &c.

Time of completion extended. See sec. 5, 1864.

See sec. 4, act 1864. Map, &c., designating route to be filed, &c.

Lands designated, &c.

From 100th meridian to Nevada.

See sec. 10 of this act.

Kansas Co. to construct road, &c.

SEC. 6. *And be it further enacted*, That the grants aforesaid are made upon condition that said company shall pay said bonds at maturity, and shall keep said railroad and telegraph line in repair and use, and shall at all times transmit dispatches over said telegraph line, and transport mails, troops, and munitions of war, supplies, and public stores upon said railroad for the Government, whenever required to do so by any department thereof, and that the Government shall at all times have the preference in the use of the same for all the purposes aforesaid (at fair and reasonable rates of compensation, not to exceed the amounts paid by private parties for the same kind of service); and all compensation for services rendered for the Government shall be applied to the payment of said bonds and interest until the whole amount is fully paid. Said company may also pay the United States, wholly or in part, in the same or other bonds, treasury notes, or other evidences of debt against the United States, to be allowed at par; and after said road is completed, until said bonds and interest are paid, at least five per centum of the net earnings of said road shall also be annually applied to the payment hereof.

SEC. 7. *And be it further enacted*, That said company shall file their assent to this act, under the seal of said company, in the Department of the Interior, within one year after the passage of this act, and shall complete said railroad and telegraph from the point of beginning as herein provided, to the western boundary of Nevada Territory before the first day of July, one thousand eight hundred and seventy-four: *Provided*, That within two years after the passage of this act said company shall designate the general route of said road, as near as may be, and shall file a map of the same in the Department of the Interior, whereupon the Secretary of the Interior shall cause the lands within fifteen miles of said designated route or routes to be withdrawn from preemption, private entry, and sale; and when any portion of said route shall be finally located, the Secretary of the Interior shall cause the said lands hereinbefore granted to be surveyed and set off as fast as may be necessary for the purposes herein named: *Provided*, That in fixing the point of connection of the main trunk with the eastern connections, it shall be fixed at the most practicable point for the construction of the Iowa and Missouri branches, as hereinafter provided.

SEC. 8. *And be it further enacted*, That the line of said railroad and telegraph shall commence at a point on the one hundredth meridian of longitude west from Greenwich, between the south margin of the valley of the Republican River and the north margin of the valley of the Platte River, in the Territory of Nebraska, at a point to be fixed by the President of the United States, after actual surveys; thence running westerly upon the most direct, central, and practicable route through the Territories of the United States to the western boundary of the Territory of Nevada, there to meet and connect with the line of the Central Pacific Railroad Company of California.

SEC. 9. *And be it further enacted*, That the Leavenworth, Pawnee and Western Railroad Company of Kansas are hereby authorized to construct a railroad and telegraph line from the Missouri River, at the mouth of the Kansas River, on the south side thereof, so as to connect with the Pacific Railroad of Missouri, the aforesaid point on the one hundredth meridian of longitude west from Greenwich, as herein provided, upon the same terms and conditions in all respects as are provided in this act for the construction of the railroad and telegraph line first mentioned, and to meet and connect with the same at the meridian of longitude aforesaid; and in case the general route or line of road from the Missouri River to the Rocky Mountains should be so located as to require a departure northwardly from the proposed line of said Kansas Railroad before it reaches the meridian of longitude aforesaid, the location of said Kansas road shall be made so as to conform thereto; and said railroad through Kansas shall be so located between the mouth of the Kansas River, as aforesaid, and the aforesaid point on the one hundredth meridian of longitude; that the several railroads from Missouri and Iowa, herein authorized to connect with the same, can make connection within the limits prescribed in this act, provided the same can be done without deviating from the general direction of the whole line to the Pacific coast. The route in Kansas, west of the meridian

of Fort Riley, to the aforesaid point, on the one hundredth meridian of longitude, to be subject to the approval of the President of the United States, and to be determined by him on actual survey. And said Kansas company may proceed to build said railroad to the aforesaid point, on the one hundredth meridian of longitude west from Greenwich, in the territory of Nebraska. The Central Pacific Railroad Company of California, a corporation existing under the laws of the State of California, are hereby authorized to construct a railroad and telegraph line from the Pacific coast, at or near San Francisco, or the navigable waters of the Sacramento River to the eastern boundary of California, upon the same terms and conditions, in all respects, as are contained in this act for the construction of said railroad and telegraph line first mentioned, and to meet and connect with the first-mentioned railroad and telegraph line on the eastern boundary of California. Each of said companies shall file their acceptance of the conditions of this act in the Department of the Interior within six months after the passage of this act.

Central Pacific R. R. Co., of California, authorized to construct road on same terms and conditions.

SEC. 10. *And be it further enacted*, That the said company chartered by the State of Kansas shall complete one hundred miles of their said road, commencing at the mouth of the Kansas River aforesaid, within two years after filing their assent to the conditions of this act, as herein provided, and one hundred miles per year thereafter until the whole is completed; and the said Central Pacific Railroad Company of California shall complete fifty miles of their said road within two years after filing their assent to the provisions of this act, as herein provided, and fifty miles per year thereafter until the whole is completed; and after completing their roads, respectively, said companies, or either of them, may unite upon equal terms with the first-named company in constructing so much of said railroad and telegraph line and branch railroads and telegraph lines in this act hereinafter mentioned, through the Territories from the State of California to the Missouri River, as shall then remain to be constructed, on the same terms and conditions as provided in this act in relation to the said Union Pacific Railroad Company. And the Hannibal and Saint Joseph Railroad, the Pacific Railroad Company of Missouri, and the first-named company, or either of them, on filing their assent to this act, as aforesaid, may unite upon equal terms, under this act, with the said Kansas company, in constructing said railroad and telegraph, to said meridian of longitude, with the consent of the said State of Kansas; and in case said first-named company shall complete their line to the eastern boundary of California before it is completed across said State by the Central Pacific Railroad Company of California, said first-named company is hereby authorized to continue in constructing the same through California, with the consent of said State, upon the terms mentioned in this act, until said roads shall meet and connect, and the whole line of said railroad and telegraph is completed; and the Central Pacific Railroad Company of California, after completing its road across said State, is authorized to continue the construction of said railroad and telegraph through the Territories of the United States¹ to the Missouri River, including the branch roads specified in this act, upon the routes hereinbefore and hereinafter indicated, on the terms and conditions provided in this act in relation to the said Union Pacific Railway Company, until said roads shall meet and connect, and the whole line of said railroad and branches and telegraph is completed.

Time of doing work, etc.

Changed to 25 miles. See sec. 5, act 1864.

Companies may unite in building on equal terms. Sec. 16, 1864, also sec. 16 of this act.

Central Pacific R. R. Co. may continue, &c., to meet other road.

SEC. 11. *And be it further enacted*, That for three hundred miles of said road most mountainous and difficult of construction, to wit: One hundred and fifty miles westwardly from the eastern base of the Rocky Mountains, and one hundred and fifty miles eastwardly from the western base of the Sierra Nevada Mountains, said points to be fixed by the President of the United States, the bonds to be issued to aid in the construction thereof shall be treble the number per mile hereinbefore provided, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed; and between the sections last

Authority confirmed. See sec. 16, act of 1864, last clause. Also sec. 2, 1866.

Subsidy bonds treble over the Rocky and Sierra Nevada Mountains.

¹See section 6, act of July 2, 1864. The words "and States intervening" inserted.

Modified. Sec. 8, 1864.

Subsidy bonds double between the mountains.

named of one hundred and fifty miles each, the bonds to be issued to aid in the construction thereof shall be double the number per mile first mentioned, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed: *Provided*, That no more than fifty thousand of said bonds shall be issued under this act to aid in constructing the main line of said railroad and telegraph.

Location at State lines and 100th meridian.

SEC. 12. *And be it further enacted*, That whenever the route of said railroad shall cross the boundary of any State or Territory, or said meridian of longitude, the two companies meeting or uniting there shall agree upon its location at that point, with reference to the most direct and practicable through route, and in case of difference between them as to said location the President of the United States shall determine the said location; the companies named in each State and Territory to locate the road across the same between the points so agreed upon, except as herein provided. The track upon the entire line of railroad and branches shall be of uniform width, to be determined by the President of the United States, so that when completed, cars can be run from the Missouri River to the Pacific Coast; the grades and curves shall not exceed the maximum grades and curves of the Baltimore and Ohio Railroad; the whole line of said railroad and branches and telegraph shall be operated and used for all purposes of communication, travel, and transportation, so far as the public and Government are concerned, as one connected, continuous line; and the companies herein named in Missouri, Kansas, and California, filing their assent to the provisions of this act, shall receive and transport all iron rails, chairs, spikes, ties, timber, and all materials required for constructing and furnishing said first-mentioned line between the aforesaid point, on the one-hundredth meridian of longitude and western boundary of Nevada Territory, whenever the same is required by said first-named company, at cost, over that portion of the roads of said companies constructed under the provisions of this act.

Track to be of uniform width, &c.

To be used as continuous line, &c.

SEC. 13. *And be it further enacted*, That the Hannibal and Saint Joseph Railroad Company of Missouri may extend its roads from Saint Joseph via Atchison, to connect and unite with the road through Kansas, upon filing its assent to the provisions of this act upon the same terms and conditions, in all respects, for one hundred miles in length next to the Missouri River, as are provided in this act for the construction of the railroad and telegraph line first mentioned, and may for this purpose use any railroad charter which has been or may be granted by the legislature of Kansas: *Provided*, That if actual survey shall render it desirable, the said company may construct their road, with the consent of the Kansas legislature, on the most direct and practicable route west from Saint Joseph, Missouri, so as to connect and unite with the road leading from the western boundary of Iowa at any point east of the one hundredth meridian of west longitude, or with the main trunk road at said point; but in no event shall lands or bonds be given to said company, as herein directed, to aid in the construction of their said road for a greater distance than one hundred miles. And the Leavenworth, Pawnee, and Western Railroad Company of Kansas may construct their road from Leavenworth to unite with the road through Kansas.

H. & St. J. road may be extended, etc.

SEC. 14. *And be it further enacted*, That the said Union Pacific Railroad Company is hereby authorized and required to construct a single line of railroad and telegraph from a point on the western boundary of the State of Iowa, to be fixed by the President of the United States, upon the most direct and practicable route, to be subject to his approval, so as to form a connection with the line of said company at some point on the one hundredth meridian of longitude aforesaid, from the point of commencement on the western boundary of the State of Iowa, upon the same terms and conditions, in all respects, as are contained in this act for the construction of the said railroad and telegraph first mentioned; and the said Union Pacific Railroad Company shall complete one hundred miles of the road and telegraph in this section provided for, in two years after filing their assent to the conditions of this act, as by the terms of this act required, and at the rate

Iowa road from western boundary of Iowa.

of one hundred miles per year thereafter, until the whole is completed. *Provided*, That a failure upon the part of said company to make said connection in the time aforesaid, and to perform the obligations imposed on said company by this section and to operate said road in the same manner as the main line shall be operated, shall forfeit to the Government of the United States all the rights, privileges, and franchises granted to and conferred upon said company by this act. And whenever there shall be a line of railroad completed through Minnesota or Iowa to Sioux City, then the said Pacific Railroad Company is hereby authorized and required to construct a railroad and telegraph from said Sioux City upon the most direct and practicable route to a point on, and so as to connect with, the branch railroad and telegraph in this section hereinbefore mentioned, or with the said Union Pacific Railroad, said point of junction to be fixed by the President of the United States, not further west than the one hundredth meridian of longitude aforesaid, and on the same terms and conditions as provided in this act for the construction of the Union Pacific Railroad as aforesaid, and to complete the same at the rate of one hundred miles per year; and should said company fail to comply with the requirements of this act in relation to the said Sioux City railroad and telegraph, the said company shall suffer the same forfeitures prescribed in relation to the Iowa branch railroad and telegraph hereinbefore mentioned.

U. P. R. R. Co. required to construct Sioux City road. Sec. 17, act of 1864.

Sec. 15. *And be it further enacted*, That any other railroad company now incorporated, or hereafter to be incorporated, shall have the right to connect their road with the road and branches provided for by this act, at such places and upon such just and equitable terms as the President of the United States may prescribe. Wherever the word company is used in this act it shall be construed to embrace the words their associates, successors, and assigns, the same as if the words had been properly added thereto.

Other companies may connect, &c.

Word company explained.

Sec. 16. *And be it further enacted*, That at any time after the passage of this act all of the railroad companies named herein, and assenting hereto, or any two or more of them, are authorized to form themselves into one consolidated company; notice of such consolidation, in writing, shall be filed in the Department of the Interior, and such consolidated company shall thereafter proceed to construct said railroad and branches and telegraph line upon the terms and conditions provided in this act.

Companies authorized to consolidate. See sec. 16, act of 1864. Also sec. 10 of this act.

Sec. 17. *And be it further enacted*, That in case said company or companies shall fail to comply with the terms and conditions of this act, by not completing said road and telegraph and branches within a reasonable time, or by not keeping the same in repair and use, but shall permit the same, for an unreasonable time, to remain unfinished, or out of repair and unfit for use, Congress may pass any act to insure the speedy completion of said road and branches, or put the same in repair and use, and may direct the income of said railroad and telegraph line to be thereafter devoted to the use of the United States to repay all such expenditures caused by the default and neglect of such company or companies: *Provided*, That if said roads are not completed so as to form a continuous line of railroad, ready for use, from the Missouri River to the navigable waters of the Sacramento River, in California, by the first day of July, eighteen hundred and seventy-six, the whole of all of said railroads before mentioned and to be constructed under the provisions of this act, together with all their furniture, fixtures, rolling stock, machine shops, lands, tenements, and hereditaments, and property of every kind and character, shall be forfeited to and be taken possession of by the United States: *Provided*, That of the bonds of the United States in this act provided to be delivered for any and all parts of the roads to be constructed east of the one hundredth meridian of west longitude from Greenwich, and for any part of the road west of the west foot of the Sierra Nevada Mountain[s], there shall be reserved in each part and installment, twenty-five per centum, to be and remain in the United States Treasury, undelivered, until said road and all parts thereof provided for in this act are entirely completed; and of all the lands provided to be delivered for the said road, between the two points aforesaid, there shall be reserved out of each installment fifteen per

Congress may compel speedy completion of road.

Main lines to be finished in 1876. See secs. 5 and 7, act of 1864.

Repealed. See sec. 7, act of 1864.

centum, to be and remain in the Treasury until the whole of the road provided for in this act is fully completed; and if the said road or any part thereof shall fail of completion at the time limited therein in this act, then and in that case the said part of said bonds so reserved shall be forfeited to the United States.

Under certain circumstances Congress may reduce rates of fare.

SEC. 18. *And be it further enacted*, That whenever it appears that the net earning of the entire road and telegraph, including the amount allowed for services rendered for the United States, after deducting all expenditures, including repairs and the furnishing, running, and managing of said road, shall exceed ten per centum upon its cost, exclusive of the five per centum to be paid to the United States, Congress may reduce the rates of fare thereon, if unreasonable in amount, and may fix and establish the same by law. And the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the Government at all times (but particularly in time of war) the use and benefits of the same for postal, military, and other purposes, Congress may at any time, having due regard for the rights of said companies named herein, add to, alter, amend, or repeal this act.

May arrange with telegraph companies now existing.

SEC. 19. *And be it further enacted*, That the several railroad companies herein named are authorized to enter into an arrangement with the Pacific Telegraph Company, the Overland Telegraph Company, and the California State Telegraph Company, so that the present line of telegraph between the Missouri River and San Francisco may be moved upon or along the line of said railroad and branches as fast as said roads and branches are built; and if said arrangement be entered into, and the transfer of said telegraph line be made in accordance therewith to the line of said railroad and branches, such transfer shall, for all purposes of this act, be held and considered a fulfilment on the part of said railroad companies of the provisions of this act in regard to the construction of said lines of telegraph. And, in case of disagreement, said telegraph companies are authorized to remove their line of telegraph along and upon the line of railroad herein contemplated without prejudice to the rights of said railroad companies named herein.

See sec. 15, act of 1864.

Companies to make annual report. This section repealed (20 Stat., 109).

SEC. 20. *And be it further enacted*, That the corporation hereby created and the roads connected therewith, under the provisions of this act, shall make to the Secretary of the Treasury an annual report wherein shall be set forth—

First. The names of the stockholders and their places of residence, so far as the same can be ascertained;

Second. The names and residences of the directors, and all other officers of the company;

Third. The amount of stock subscribed, and the amount thereof actually paid in;

Fourth. A description of the lines of road surveyed, of the lines thereof fixed upon for the construction of the road, and the cost of such survey;

Fifth. The amount received from passengers on the road;

Sixth. The amount received for freight thereon;

Seventh. A statement of the expense of said road and its fixtures;

Eighth. A statement of the indebtedness of said company, setting forth the various kinds thereof. Which report shall be sworn to by the president of the said company, and shall be presented to the Secretary of the Treasury on or before the first day of July in each year.

ACT OF JULY 12, 1862.

12 Stat., 538.

AN ACT to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July 1, 1862.

First meeting of commissioners on Pacific Railroad and Telegraph to be held at Chicago.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first meeting of the commissioners named in the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of same for postal, military, and other purposes," approved July first, eighteen

hundred and sixty-two, and of the five commissioners directed by said act to be appointed by the Secretary of the Interior, shall be held at Bryan Hall, in the city of Chicago, in the State of Illinois, on the first Tuesday in September next, at twelve o'clock, at noon. A notice of said meeting, to be signed by at least ten of the commissioners named in said act, shall be published at least once a week during the six successive weeks commencing on the twentieth of July, one thousand eight hundred and sixty-two, in one daily newspaper in each of the cities of Boston, New York, Philadelphia, Cincinnati, Chicago, and St. Louis, and no other notice of said meeting shall be requisite.

Notice.

AMENDMENT OF JULY 2, 1864.

AN ACT to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military and other purposes," approved July 1, 1862.

13 Stat., 856.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the capital stock of the company entitled the Union Pacific Railroad Company, authorized by the act of which this act is amendatory, shall be in shares of one hundred dollars, instead of one thousand dollars, each; that the number of shares shall be one million, instead of one hundred thousand; and that the number of shares which any person shall hold to entitle him to serve as a director in said company (except the five directors to be appointed by the Government) shall be fifty shares instead of five shares; and that every subscriber to said capital stock for each share of one thousand dollars, heretofore subscribed, shall be entitled to a certificate for ten shares of one hundred dollars each; and that the following words in section first of said act, "which shall be subscribed for and held in not more than two hundred shares by any one person," be, and the same are hereby, repealed.

Shares of Union Pacific Railroad Company changed from \$1,000 to \$100.

Ownership of stock by directors. See sec. 1, act 1862.

SEC. 2. And be it further enacted, That the Union Pacific Railroad Company shall cause books to be kept open to receive subscriptions to the capital stock of said company, (until the entire capital of one hundred millions of dollars shall be subscribed), at the general office of said company in the city of New York, and in each of the cities of Boston, Philadelphia, Baltimore, Chicago, Cincinnati, and Saint Louis, at such places as may be designated by the President of the United States, and in such other localities as may be directed by him. No subscription for said stock shall be deemed valid unless the subscriber therefor shall, at the time of subscribing, pay or remit to the treasury of the company an amount per share subscribed by him equal to the amount per share previously paid by the then existing stockholders. The said company shall make assessments upon its stockholders of not less than five dollars per share, and at intervals of not exceeding six months from and after the passage of this act, until the par value of all shares subscribed shall be fully paid; and money only shall be receivable for any such assessment, or as an equivalent for any portion of the capital stock hereinbefore authorized. The capital stock of said company shall not be increased beyond the actual cost of said road. And the stock of the company shall be deemed personal property, and shall be transferable on the books of the company, at the general office of said company in the city of New York, or at such other transfer office as the company may establish.

Books to be kept open in several cities. See sect. 1, 1862.

Per cent to be paid.

Assessments of stockholders.

How paid.

Amount of capital.

Stock personal property.

SEC. 3. And be it further enacted, That the Union Pacific Railroad Company, and all other companies provided for in this act and the act to which this is an amendment, be, and hereby are empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of its center line, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station house[s] or any other structures required in the construction and operating of said road. And each of said companies shall have the right to cut and remove trees or other materials that might by falling encumber its road-bed, though standing or being more than one hundred feet there-

Additional right of way granted. See sec. 2, 1862.

JOINT RESOLUTION OF APRIL 10, 1869.

16 Stat., 56.

JOINT RESOLUTION for the protection of the interests of the United States in the Union Pacific Railroad Company, the Central Pacific Railroad Company, and for other purposes.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the stockholders of the Union Pacific Railroad Company, at a meeting to be held on the twenty-second day of April, eighteen hundred and sixty-nine, at the city of Boston (with power to adjourn from day to day), shall elect a board of directors for the ensuing year; and said stockholders are hereby authorized to establish their general office at such place in the United States as they may select at said meeting: *Provided,* That the passage of this resolution shall not confer any other right upon said Union Pacific Railroad Company than to hold such election, or be held in any manner to relinquish or waive any rights of the United States to take advantage of any act or neglect of said Union Pacific Railroad Company heretofore done or omitted whereby the rights of the General Government have been or may be prejudiced: *And provided further,* That the common terminus of the Union Pacific and the Central Pacific Railroads shall be at or near Ogden; and the Union Pacific Railroad Company shall build, and the Central Pacific Railroad Company pay for and own the railroad from the terminus aforesaid to Promontory Summit, at which point the rails shall meet and connect and form one continuous line.

Common terminus of the Union Pacific and Central Pacific Railroad to be at or near Ogden, &c. The President to appoint a commission to examine and report upon the roads.

Expenses and pay of commissioners. SEC. 2. *And be it further resolved,* That to ascertain the condition of the Union Pacific Railroad and the Central Pacific Railroad, the President of the United States is authorized to appoint a board of eminent citizens, not exceeding five in number, and who shall not be interested in either road, to examine and report upon the condition of, and what sum or sums, if any, will be required to complete each of said roads, for the entire length thereof, to the said terminus as a first-class railroad, in compliance with the several acts relating to said roads; and the expense of such board, including an allowance of ten dollars to each for their services for each day employed in such examination or report, to be paid equally by said companies.

Subsidy bonds to be withheld sufficient to secure the full completion, as a first-class road, of all sections of such road, &c. SEC. 3. *And be it further resolved,* That the President is hereby authorized and required to withhold from each of said companies an amount of subsidy bonds authorized to be issued by the United States under said acts sufficient to secure the full completion as a first-class road of all sections of such road upon which bonds have already been issued, or in lieu of such bonds he may receive as such security an equal amount of the first-mortgage bonds of such company; and if it shall appear to the President that the amount of subsidy bonds yet to be issued to either of said companies is sufficient to insure the full completion of such road, he may make requisition upon such company for a sufficient amount of bonds already issued to said company, or in his discretion of their first-mortgage bonds, to secure the full completion of the same. And in default of obtaining such security as [is] in this section provided, the President may authorize and direct the Attorney-General to institute such suits and proceedings on behalf and in the name of the United States, in any court of the United States having jurisdiction, as shall be necessary or proper to compel the giving of such security, and thereby, or in any manner otherwise, to protect the interests of the United States in said road, and to insure the full completion thereof as a first-class road, as required by law and the statutes in that case made.

If the amount to be issued is insufficient, &c. SEC. 4. *And be it further resolved,* That the Attorney-General of the United States be, and he is hereby, authorized and directed to investigate whether or not the charter and all the franchises of the Union Pacific Railroad Company and of the Central Pacific Railroad Company have not been forfeited, and to institute all necessary and proper legal proceedings; also to investigate whether or not said companies have or have not made any illegal dividends upon their stock, and if so to institute the necessary proceedings to have the same reimbursed; and also to investigate whether any of the directors or any other agents or employes of said companies have or not violated any penal law, and if so to institute the proper criminal proceedings against all persons who have violated such laws.

Attorney-General to institute necessary suits. SEC. 5. *And be it further resolved,* That the Attorney-General of the United States be, and he is hereby, authorized and directed to investigate whether the charter of the Union Pacific and Central Pacific Railroads have not been forfeited, and to institute all necessary and proper legal proceedings; also to investigate whether or not said companies have or have not made any illegal dividends upon their stock, and if so to institute the necessary proceedings to have the same reimbursed; and also to investigate whether any of the directors or any other agents or employes of said companies have or not violated any penal law, and if so to institute the proper criminal proceedings against all persons who have violated such laws.

To institute criminal proceedings, &c. SEC. 6. *And be it further resolved,* That the Attorney-General of the United States be, and he is hereby, authorized and directed to investigate whether the charter of the Union Pacific and Central Pacific Railroads have not been forfeited, and to institute all necessary and proper legal proceedings; also to investigate whether or not said companies have or have not made any illegal dividends upon their stock, and if so to institute the necessary proceedings to have the same reimbursed; and also to investigate whether any of the directors or any other agents or employes of said companies have or not violated any penal law, and if so to institute the proper criminal proceedings against all persons who have violated such laws.

eral land, or the improvements of any bona fide settler, or any lands returned and denominated as mineral lands, and the timber necessary to support his said improvement as a miner or agriculturist, to be ascertained under such rules as have been or may be established by the Commissioner of the General Land Office, in conformity with the provisions of the preemption laws: *Provided*, That the quantity thus exempted by the operation of this act, and the act to which this act is an amendment, shall not exceed one hundred and sixty acres for each settler who claims as an agriculturist, and such quantity for each settler who claims as a miner, as the said Commissioner may establish by general regulation: *Provided, also*, That the phrase, "but where the same shall contain timber, the timber thereon is hereby granted to said company," in the proviso to said section three, shall not apply to the timber growing or being on any land farther than ten miles from the center line of any one of said roads or branches mentioned in said act, or in this act. And all lands shall be excluded from the operation of this act, and of the act to which this act is an amendment, which were located, or selected to be located, under the provisions of an act entitled "An act donating land to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July second, eighteen hundred and sixty-two, and notice thereof given at the proper land office.

Sec. 5. *And be it further enacted*, That the time for designating the general route of said railroad, and of filing the map of the same, and the time for the completion of that part of the railroads required by the terms of said act of each company, be, and the same is hereby, extended one year from the time in said act designated; and that the Central Pacific Railroad Company of California shall be required to complete twenty-five miles of their said road in each year thereafter, and the whole to the State line within four years, and that only one-half of the compensation for services rendered for the Government by said companies shall be required to be applied to the payment of the bonds issued by the Government in aid of the construction of said roads.

Sec. 6. *And be it further enacted*, That the proviso to section four of said act is hereby modified as follows, viz: And the President of the United States is hereby authorized, at any time after the passage of this act, to appoint for each and every of said roads three commissioners, as provided for in the act to which this is amendatory; and the verified statement of the president of the California company, required by said section four, shall be filed in the office of the United States surveyor-general for the State of California, instead of being presented to the President of the United States; and the said surveyor-general shall thereupon notify the said commissioners of the filing of such statement, and the said commissioners shall thereupon proceed to examine the portion of said railroad and telegraph line so completed, and make their report thereon to the President of the United States, as provided by the act to which this is amendatory. And such statement may be filed, and such railroad and telegraph line be examined and reported on by the said commissioners, and the requisite amount of bonds may be issued and the lands appertaining thereto may be set apart, located, entered, and patented, as provided in this act and the act to which this is amendatory, upon the construction by said railroad company of California of any portion of not less than twenty consecutive miles of their said railroad and telegraph line, upon the certificates of said commissioners that such portion is completed as required by the act to which this is amendatory. And section ten of the act of which this is amendatory is hereby amended by inserting after the words "United States," in the last clause, the words "and States intervening."

Sec. 7. *And be it further enacted*, That so much of section seventeen of said act as provides for a reservation by the Government of a portion of the bonds to be issued to aid in the construction of the said railroads is hereby repealed. And the failure of any one company to comply fully with the conditions and requirements of this act, and the act to which this is amendatory, shall not work a forfeiture of the rights, privileges, or franchises, of any other company or companies that shall have complied with the same.

160 acres only exempted.

Timber to be company's. Sec. 3, 1862.

Other lands exempted.

Time extended one year. Secs. 7 and 17, 1862, amended.

Twenty-five miles per year changed from 50. Sec. 10, 1862.

Four years to State line.

Government to pay one-half for services.

Sec. 4, 1862, modified, three commissioners, &c.

Affidavit, &c., of C. P. R. Co. to be filed in California.

Lands patented. See sec. 4, 1862. Also sec. 21, this act.

Sec. 10, 1862, amended.

Reservation of bonds by sec. 17, 1862, repealed.

Failure of one company not to affect others. Sec. 17, 1862, altered.

Partial issue of bonds on uncompleted work. Sec. 11, 1863, modified.

SEC. 8. *And be it further enacted*, That for the purpose of facilitating the work on said railroad, and of enabling the said company as early as practicable to commence the grading of said railroad in the region of the mountains, between the eastern base of the Rocky Mountains and the western base of the Sierra Nevada Mountains, so that the same may be finally completed within the time required by law, it is hereby provided that whenever the chief engineer of the said company and said commissioners shall certify that a certain proportion of the work required to prepare the road for the superstructure on any such section of twenty miles is done (which said certificate shall be duly verified), the Secretary of the Treasury is hereby authorized and required, upon the delivery of such certificate, to issue to said company a proportion of said bonds, not exceeding two-thirds of the amount of bonds authorized to be issued under the provisions of the act, to aid in the construction of such section of twenty miles, nor in any case exceeding two-thirds of the value of the work done, the remaining one-third to remain until the said section is fully completed and certified by the commissioners appointed by the President, according to the terms and provisions of the said act; and no such bonds shall issue to the Union Pacific Railroad Company for work done west of Salt Lake City under this section more than three hundred miles in advance of the completed continuous line of said railroad from the point of beginning on the hundredth meridian of longitude.

Two-thirds on graded portions. See sec. 6 of this act.

U. P. R. Co. cannot receive for more than 300 miles in advance west of Salt Lake City.

SEC. 9. *And be it further enacted*, That to enable any one of said corporations to make convenient and necessary connections with other roads, it is hereby authorized to establish and maintain all necessary ferries upon and across the Missouri River and other rivers which its road may pass in its course; and authority is hereby given said corporation to construct bridges over said Missouri River and all other rivers for the convenience of said road: *Provided*, That any bridge or bridges it may construct over the Missouri River, or any other navigable river on the line of said road, shall be constructed with suitable and proper draws for the passage of steamboats, and shall be built, kept, and maintained at the expense of said company, in such manner as not to impair the usefulness of said rivers for navigation to any greater extent than such structures of the most approved character necessarily do: *And provided further*, That any company authorized by this act to construct its road and telegraph line from the Missouri River to the initial point aforesaid may construct its road and telegraph line so as to connect with the Union Pacific Railroad at any point westwardly of such initial point, in case such company shall deem such westward connection more practicable or desirable; and in aid of the construction of so much of its road and telegraph line as shall be a departure from the route hereinbefore provided for its road, such company shall be entitled to all the benefits and be subject to all the conditions and restrictions of this act: *Provided further, however*, That the bonds of the United States shall not be issued to such company for a greater amount than is hereinbefore provided, if the same had united with the Union Pacific Railroad on the 100th degree of longitude; nor shall such company be entitled to receive any greater amount of alternate sections of public lands than are also herein provided.

Ferries and bridges.

Roads may connect west of initial point.

No increased amount of bonds, etc.

First-mortgage bonds may have lien prior to Government.

SEC. 10. *And be it further enacted*, That section five of said act be so modified and amended that the Union Pacific Railroad Company, the Central Pacific Railroad Company, and any other company authorized to participate in the construction of said road, may, on the completion of each section of said road, as provided in this act and the act to which this act is an amendment, issue their first-mortgage bonds on their respective railroad and telegraph lines to an amount not exceeding the amount of the bonds of the United States, and of even tenor and date, time of maturity, rate and character of interest with the bonds authorized to be issued to said railroad companies respectively. And the lien of the United States bonds shall be subordinate to that of the bonds of any or either of said companies hereby authorized to be issued on their respective roads, property, and equipments, except as to the provisions of the sixth section of the act to which this act is an amendment, relating to the transmission of dispatches and the transportation of mails, troops, munitions of war, supplies, and public stores

Sec. 5, 1862, modified.

See sec. 1, act of 1865.

Lien of U. S. bonds to be subordinate, etc.

for the Government of the United States. And said section is further amended by striking out the word "forty," and inserting in lieu thereof the words "on each and every section of not less than twenty." 20 miles instead of 40 miles, as in sec. 5, act of 1862.

SEC. 11. *And be it further enacted*, That if any of the railroad companies entitled to bonds of the United States, or to issue their first-mortgage bonds herein provided for, has, at the time of the approval of this act, issued, or shall thereafter issue, any of its own bonds or securities in such form or manner as in law or equity to entitle the same to priority or preference of payment to the said guaranteed bonds, or said first-mortgage bonds, the amount of such corporate bonds outstanding and unsatisfied, or uncanceled, shall be deducted from the amount of such government and first-mortgage bonds which the company may be entitled to receive and issue; and such an amount only of such government bonds and such first-mortgage bonds shall be granted or permitted, as added to such outstanding, unsatisfied, or uncanceled bonds of the company shall make up the whole amount per mile to which the company would otherwise have been entitled: *And provided further*, That before any bonds shall be so given by the United States, the company claiming them shall present to the Secretary of the Treasury an affidavit of the president and secretary of the company, to be sworn to before the judge of a court of record, setting forth whether such company has issued any such bonds or securities, and, if so, particularly describing the same, and such other evidence as the secretary may require, so as to enable him to make the deduction herein required; and such affidavit shall then be filed and deposited in the office of the Secretary of the Interior. And any person swearing falsely to any such affidavit shall be deemed guilty of perjury, and, on conviction thereof, shall be punished as aforesaid: *Provided, also*, That no land granted by this act shall be conveyed to any party or parties, and no bonds shall be issued to any company or companies, party or parties, on account of any road or part thereof, made prior to the passage of the act to which this act is an amendment, or made subsequent thereto under the provisions of any act or acts other than this act and the act amended by this act. Provision for bonds already issued by any companies.

SEC. 12. *And be it further enacted*, That the Leavenworth, Pawnee and Western Railroad Company, now known as the Union Pacific Railroad Company, eastern division, shall build the railroad from the mouth of Kansas River, by the way of Leavenworth, or, if that be not deemed the best route, then the said company shall, within two years, build a railroad from the city of Leavenworth to unite with the main stem at or near the city of Lawrence; but to aid in the construction of said branch the said company shall not be entitled to any bonds. And if the Union Pacific Railroad Company shall not be proceeding in good faith to build the said railroad through the Territories when the Leavenworth, Pawnee and Western Railroad Company, now known as the Union Pacific Railroad Company, eastern division, shall have completed their road to the hundredth degree of longitude, then the last-named company may proceed to make said road westward until it meets and connects with the Central Pacific Railroad Company on the same line. And the said railroad from the mouth of Kansas River, to one hundredth meridian of longitude shall be made by the way of Lawrence and Topeka, or on the bank of the Kansas River, opposite said towns: *Provided*, That no bonds shall be issued or lands certified by the United States to any person or company for the construction of any part of the main trunk line of said railroad west of the one hundredth meridian of longitude and east of the Rocky Mountains until said road shall be completed from or near Omaha, on the Missouri River, to the said one hundredth meridian of longitude. Affidavit of amount of outstanding company bonds.

SEC. 13. *And be it further enacted*, That at and after the next election of directors, the number of directors to be elected by the stockholders shall be fifteen; and the number of directors to be appointed by the President shall be five; and the President shall appoint three additional directors to serve until the next regular election, and thereafter five directors. At least one of said Government directors shall be placed on each of the standing committees of said company and at least one on every special committee that may be appointed. The Government directors shall, from time to time, report to the Secretary of the Interior, in answer to any inquiries he may make of them, touching the condition, management, and progress of the work, and No land or bonds to go to any co. on road made prior to act of 1862.

Leavenworth and Lawrence roads, no bonds.

If built to 100th meridian, may proceed in default of U. P. R. R.

By way of Lawrence and Topeka, or opposite to 100th meridian. West of that line no bonds shall be issued, etc.

Directors, 15; Government directors, 5. Sec 1, 1862, modified.

One Government director on committees.

Government directors to report, etc.

- shall communicate to the Secretary of the Interior, at any time, such information as should be in the possession of the Department. They shall, as often as may be necessary to a full knowledge of the condition and management of the line, visit all portions of the line of road, whether built or surveyed; and, while absent from his home, attending to their duties as directors, shall be paid their actual traveling expenses, and be allowed and paid such reasonable compensation for their time actually employed as the board of directors may decide.
- To visit road, etc.** Sec. 14. *And be it further enacted,* That the next election for directors of said railroad shall be held on the first Wednesday of October next at the office of said company in the city of New York, between the hours of ten o'clock a. m. and four o'clock p. m. of said day; and all subsequent regular elections shall be held annually thereafter at the same place; and the directors shall hold their office for one year, and until their successors qualified.
- Directors, when elected and where (sec. 1, 1862), for one year.** Sec. 15. *And be it further enacted,* That the several companies authorized to construct the aforesaid roads are hereby required to operate and use said roads and telegraph for all purposes of communication, travel, and transportation, so far as the public and the Government are concerned, as one continuous line; and, in such operation and use, to afford and secure to each equal advantages and facilities as to rates, time, and transportation, without any discrimination of any kind in favor of the road or business of any or either of said companies, or adverse to the road or business of any or either of the others, and it shall not be lawful for the proprietors of any line of telegraph, authorized by this act or the act amended by this act to refuse or fail to convey for all persons requiring the transmission of news and messages of like character, on pain of forfeiting to the person injured for each offense the sum of one hundred dollars and such other damage as he may have suffered on account of said refusal or failure, to be used for and recovered in any court of the United States, or of any State or Territory of competent jurisdiction.
- Road to be used as one continuous line. See sec. 12, act of 1862.** Sec. 16. *And be it further enacted,* That any two or more of the companies authorized to participate in the benefits of this act are hereby authorized at any time to unite and consolidate their organizations, as the same may or shall be, upon such terms and conditions, and in such manner as they may agree upon, and as shall not be incompatible with this act, or the laws of the State or States in which the road of such companies may be, and to assume and adopt such corporate name and style as they may agree upon, with a capital stock not to exceed the actual cost of the roads so to be consolidated, and shall file a copy of such consolidation in the Department of the Interior; and thereupon such organization, so formed and consolidated, shall succeed to, possess, and be entitled to receive from the Government of the United States all and singular the grants, benefits, immunities, guaranties, acts, and things to be done and performed and be subject to the same terms, conditions, restrictions, and requirements which said companies, respectively, at the time of such consolidation, are or may be entitled or subject to under this act, in place and substitution of said companies so consolidated respectively. And all other provisions of this act, so far as applicable, relating or in any manner appertaining to the companies so consolidated, or either thereof, shall apply and be of force as to such consolidated organization. And in case upon the completion by such consolidated organization of the roads, or either of them, of the companies so consolidated, any other of the road or roads of either of the other companies authorized as aforesaid (and forming, and intended or necessary to form, a portion of a continuous line from each of the several points on the Missouri River, hereinbefore designated, to the Pacific coast), shall not have constructed the number of miles of its said road within the time herein required, such consolidated organization is hereby authorized to continue the construction of its road and telegraph in the general direction and route upon which such incomplete or unconstructed road is hereinbefore authorized to be built, until such continuation of the road of such consolidated organization shall reach the constructed road and telegraph of said other company, and at such point to connect and unite therewith; and for and in aid thereof the said consolidated organization may do and perform, in reference to such portion of road and telegraph as shall so be in continuation of its constructed
- Must telegraph for all persons. See sec. 19, act of 1862.**
- Companies may consolidate. See sec. 16, act of 1862; also Sec. 10, 1862.**
- Consolidated companies may build portion of the line left uncompleted by any company.**

road and telegraph, and to the construction and equipment thereof, all and singular, the several acts and things hereinbefore provided, authorized, or granted to be done by the company hereinbefore authorized to construct and equip the same, and shall be entitled to similar and like grants, benefits, immunities, guarantees, acts, and things to be done and performed by the Government of the United States, by the President of the United States, by the secretaries of the Treasury and Interior and by commissioners in reference to such company, and to such portion of the road hereinbefore authorized to be constructed by it, and upon the like and similar terms and conditions, so far as the same are applicable thereto. And said consolidated company shall pay to said defaulting company the value to be estimated by competent engineers of all the work done and material furnished by said defaulting company, which may be adopted and used by said consolidated company in the progress of the work under the provisions of this section: *Provided, nevertheless,* That said defaulting company may at any time before receiving pay for its said work and material, as hereinbefore provided, on its own election, pay said consolidated company the value of the work done and material furnished by said consolidated company, to be estimated by competent engineers, necessary for, and used in, the construction of the road of said defaulting company, and resume the control of its said road; and all the rights, benefits, and privileges which shall be acquired, possessed, or exercised, pursuant to this section, shall be to that extent an abatement of the rights, benefits, and privileges hereinbefore granted to such other company. And in case any company authorized thereto shall not enter into such consolidated organization, such company, upon the completion of its road as hereinbefore provided, shall be entitled to and is hereby authorized to, continue and extend the same under the circumstances, and in accordance with the provisions of this section, and to have all the benefits thereof, as fully and completely as are herein provided, touching such consolidated organization. And in case more than one such consolidated organization shall be made, pursuant to this act, the terms and conditions of this act, hereinbefore recited as to one, shall apply in like manner, force, and effect to the other: *Provided, however,* That rights and interests at any time acquired by one such consolidated organization shall not be impaired by another thereof. It is further provided that should the Central Pacific Railroad Company of California complete their line to the eastern line of the State of California before the line of the Union Pacific Railroad Company shall have been extended westward so as to meet the line of said first-named company, said first-named company may extend their line of road eastward one hundred and fifty miles, on the established route, so as to meet and connect with the line of the Union Pacific road, complying in all respects with the provisions and restrictions of this act as to said Union Pacific road, and upon doing so shall enjoy all the rights, privileges, and benefits conferred by this act on said Union Pacific Railroad Company.

Powers and duties of consolidated organization.

When Central Pacific road shall reach eastern line of said State, may go on 150 miles if road not met. Sec. 10, 1862, amended. Also see Sec. 2, 1866.

Sec. 17. *And be it further enacted,* That so much of section fourteen of said act as relates to a branch from Sioux City be, and the same is hereby, amended so as to read as follows: That whenever a line of railroad shall be completed through the State of Iowa, or Minnesota, to Sioux City, such company, now organized, or may hereafter be organized, under the laws of Iowa, Minnesota, Dakota, or Nebraska, as the President of the United States by its request may designate or approve for that purpose, shall construct and operate a line of railroad and telegraph from Sioux City, upon the most direct and practicable route to such a point on, and so as to connect with, the Iowa branch of the Union Pacific Railroad from Omaha, or the Union Pacific railroads, as such company may select, and on the same terms and conditions as are provided in this act and the act to which this is an amendment, for the construction of the said Union Pacific Railroad and telegraph line and branches; and said company shall complete the same at the rate of fifty miles per year: *Provided,* That the said Union Pacific Railroad Company shall be, and is hereby, released from the construction of said branch. And said company constructing said branch shall not be entitled to receive in bonds an amount larger than the said Union Pacific Railroad Company would be entitled to receive if it had constructed the branch under this act and the act

Sec. 14, 1862, amended as to Sioux City branch road.

ACT OF JUNE 22, 1874.

18 Stat., 200. AN ACT providing for the collection of moneys due the United States from the Pacific Railroad Company.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and hereby is, directed to require payment of the railroad companies, their successors or assigns, or the successors or assigns of any or either of said companies, of all sums of money due or to become due, the United States for the five per centum of the net earnings provided for by the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, or by any other act or acts in relation to the companies therein named, or any other such company or companies, and in case either of said railroad companies shall neglect or refuse to pay the same within sixty days after demand therefor made upon the treasurer of such railroad company, the Secretary of the Treasury shall certify that fact to the Attorney-General, who shall thereupon institute the necessary suits and proceedings to collect and otherwise obtain redress in respect of the same in the proper circuit courts of the United States, and prosecute the same, with all convenient dispatch to a final determination.

Secretary of the Treasury to demand five per cent of net earnings.

Attorney-General to bring suit.

ACT OF MARCH 3, 1875.

18 Stat., 453. AN ACT making appropriations for the support of the Army for the fiscal year ending June thirtieth, eighteen hundred and seventy-six, and for other purposes.

Provided, That no money shall hereafter be paid to any railroad company for the transportation of any property or troops of the United States over any railroad which, in whole or in part, was constructed by the aid of a grant of public land, on the condition that such railroad should be a public highway for the use of the Government of the United States, from toll or other charge, or upon any other conditions for the use of such road, for such transportation; nor shall any allowance be made for the transportation of officers of the Army over any such road when on duty and under orders as military officers of the United States. But nothing herein contained shall be construed as preventing any such railroad from bringing a suit in the Court of Claims for the charges for such transportation, and recovering for the same if found entitled thereto, by virtue of the laws in force prior to the passage of this act; provided that the claim for such charges shall not have been barred by the statute of limitations at the time of bringing the suit, and either party shall have the right of appeal to the Supreme Court of the United States: *And provided further,* That the foregoing provision shall not apply for the current fiscal year, nor thereafter, to roads where the sole condition of transportation is that the company shall not charge the Government higher rate than they do individuals for like transportation, and when the Quartermaster-General shall be satisfied that this condition has been faithfully complied with.

No payment for transportation of troops, &c., to railroads, receiving land grants, etc.

No allowance for transportation of officers on duty.

Right of companies to sue in Court of Claims.

Statute of limitations. Appeal. Proviso.

ACT OF APRIL 30, 1878.

20 Stat., 44. AN ACT to provide for deficiencies in the appropriations for the service of the government for the fiscal year ending June thirtieth, eighteen hundred and seventy-eight; and for prior years for subsistence of the Army, and for other purposes.

* * * * *

WAR DEPARTMENT.

Transportation of Army.

TRANSPORTATION.—To enable the Secretary of War to pay for transportation of the Army, including baggage of the troops when moving either by land or water; of clothing and camp and garrison equipage from the depots of Philadelphia and Jeffersonville to the several posts

and Army depots, and from those depots to the troops in the field; of horse-equipments and of subsistence stores from the places of purchase and from the places of delivery, under contract, to such places as the circumstances of the service may have required them to be sent; of ordnance, ordnance stores, and small arms from the foundries and armories to the arsenals, fortifications, frontier posts, and Army depots; freights, wharfage, tolls, and ferriages; the purchase and hire of horses, mules, oxen, and harness, and the purchase and repair of wagons, carts, and drays, and of ships, and other sea-going vessels and boats required for the transportation of supplies and for garrison purposes; for drayage and cartage at the several posts; hire of teamsters; transportation of funds for the pay and other disbursing departments; the expense of sailing public transports on the various rivers, the Gulf of Mexico, and the Atlantic and Pacific; for procuring water at such posts as, from their situation, require it to be brought from a distance; and for clearing roads, and for removing obstructions from roads, harbors, and rivers, to the extent which has been required for the actual operations of the troops in the field, one million two hundred thousand dollars, being a deficiency for the fiscal year ending June thirtieth, eighteen hundred and seventy-seven: *Provided, however,* That no part of this sum shall be paid to any railroad company or to its assigns on account of freights or transportation over their respective roads unless there be an excess due such company after charging the amount of payments made by the United States for interest upon bonds of the United States issued to any such company; but the same shall be paid to the Secretary of the Treasury, to be by him withheld, as directed by existing law.

Railway companies.
Interest on bonds to be deducted.

* * * * *

ACT OF MAY 7, 1878.

AN ACT to alter and amend the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and for other purposes," approved July first, eighteen hundred and sixty-two, and also to alter and amend the act of Congress approved July second, eighteen hundred and sixty-four, in amendment of said first-named act.

20 Stat., 56.

Whereas, on the first day of July, anno Domini eighteen hundred and sixty-two, Congress passed an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes; and

Preamble.

Whereas, afterward, on the second day of July, Anno Domini eighteen hundred and sixty-four, Congress passed an act in amendment of said first-mentioned act; and

Whereas, the Union Pacific Railroad Company, named in said acts, and under the authority thereof, undertook to construct a railway, after the passage thereof, over some part of the line mentioned in said acts; and

Whereas, under the authority of the said two acts, the Central Pacific Railroad Company of California, a corporation existing under the laws of the State of California, undertook to construct a railway, after the passage of said acts, over some part of the line mentioned in said acts; and

Whereas, the United States upon demand of said Central Pacific Railroad Company, have heretofore issued, by way of a loan, and as provided in said acts, to and for the benefit of said company, in aid of the purposes named in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half-yearly, to the amount of twenty-five million eight hundred and eighty-five thousand one hundred and twenty dollars, which said bonds have been sold in the market or otherwise disposed of by said company; and

Whereas, the said Central Pacific Company has issued and disposed of an amount of its own bonds equal to the amount so issued by the United States, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas, after the passage of said acts, the Western Pacific Railroad Company, a corporation then existing under the laws of California, did, under the authority of Congress, become the assignee of the rights, duties, and obligations of the said Central Pacific Railroad Company, as provided in the act of Congress passed on the third of March, anno Domini eighteen hundred and sixty-five, and did, under the authority of the said act and of the acts aforesaid, construct a railroad from the city of San José to the city of Sacramento, in California, and did demand and receive from the United States the sum of one million nine hundred and seventy thousand five hundred and sixty dollars of the bonds of the United States, of the description before mentioned as issued to the Central Pacific Company, and in the same manner and under the provisions of said acts; and upon and in respect of the bonds so issued to both said companies, the United States have paid interest to the sum of more than thirteen and a half million dollars, which has not been reimbursed; and

Whereas said Western Pacific Railroad Company has issued and disposed of an amount of its own bonds equal to the amount so issued by the United States to it, and secured the same by mortgage, which are, if lawfully issued and disposed of, a prior and paramount lien to that of the United States, as stated and secured thereby; and

Whereas said Western Pacific Railroad Company has since become merged in, and consolidated with, said Central Pacific Railroad Company, under the name of the Central Pacific Railroad Company, whereby the said Central Pacific Railroad Company has become liable to all the burdens, duties, and obligations before resting upon said Western Pacific Railroad Company; and divers other railroad companies have been merged in and consolidated with said Central Pacific Railroad Company; and

Whereas the United States, upon the demand of the said Union Pacific Railroad Company, have heretofore issued by way of loan to it and as provided in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half-yearly, the principal sums of which amount to twenty-seven million two hundred and thirty-six thousand five hundred and twelve dollars; on which the United States have paid over ten million dollars interest over and above all reimbursements; which said bonds have been sold in the market or otherwise disposed of by said corporation; and

Whereas said corporation has issued and disposed of an amount of its own bonds equal to the amounts so issued to it by the United States as aforesaid, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas the total liabilities (exclusive of interest to accrue) to all creditors, including the United States, of the said Central Pacific Company, amount in the aggregate to more than ninety-six million dollars, and those of the said Union Pacific Railroad Company to more than eighty-eight million dollars; and

Whereas the United States, in view of the indebtedness and operations of said several railroad companies respectively, and of the disposition of their respective incomes, are not and can not, without further legislation, be secure in their interests in and concerning said respective railroads and corporations, either as mentioned in said acts or otherwise; and

Whereas a due regard to the rights of said several companies respectively, as mentioned in said act of eighteen hundred and sixty-two, as well as just security to the United States in the premises, and in respect of all the matters set forth in said act, require that the said act of eighteen hundred and sixty-two be altered and amended as hereinafter enacted; and

Whereas, by reason of the premises also, as well as for other causes of public good and justice, the powers provided and reserved in said act of eighteen hundred and sixty-four for the amendment and alteration thereof ought also to be exercised as hereinafter enacted: Therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the net earnings mentioned in said act of eighteen hundred and sixty-two, of said railroad com-

Net earnings.

panies respectively, shall be ascertained by deducting from the gross amount of their earnings, respectively, the necessary expenses actually paid within the year in operating the same and keeping the same in a state of repair, and also the sum paid by them respectively within the year in discharge of interest on their first-mortgage bonds, whose lien has priority over the lien of the United States, and excluding from consideration all sums owing or paid by said companies respectively for interest upon any other portion of their indebtedness; and the foregoing provision shall be deemed and taken as an amendment of said act of eighteen hundred and sixty-four, as well as of said act of eighteen hundred and sixty-two. This section shall take effect on the thirtieth day of June next, and be applicable to all computations of net earnings thereafter; but it shall not affect any right of the United States or of either of said railroad companies existing prior thereto.

How to be ascertained.

Date of effect.

SEC. 2. That the whole amount of compensation which may, from time to time, be due to said several railroad companies respectively for services rendered for the Government shall be retained by the United States, one-half thereof to be presently applied to the liquidation of the interest paid and to be paid by the United States upon the bonds so issued by it as aforesaid, to each of said corporations severally, and the other half thereof to be turned into the sinking fund hereinafter provided, for the uses therein mentioned.

Compensation retained; how applied.

SEC. 3. That there shall be established in the Treasury of the United States a sinking fund, which shall be invested by the Secretary of the Treasury in bonds of the United States; and the semiannual income thereof shall be in like manner from time to time invested, and the same shall accumulate and be disposed of as hereinafter mentioned. And in making such investments the Secretary shall prefer the five per centum bonds of the United States, unless for good reasons appearing to him, and which he shall report to Congress, he shall at any time deem it advisable to invest in other bonds of the United States. All the bonds belonging to said fund shall, as fast as they shall be obtained, be so stamped as to show that they belong to said fund, and that they are not good in the hands of other holders than the Secretary of the Treasury until they shall have been indorsed by him, and publicly disposed of pursuant to this act.

Sinking fund. (Amended by section 5 of act of March 3, 1887.)

SEC. 4. That there shall be carried to the credit of the said fund on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the Government by said Central Pacific Railroad Company, not applied in liquidation of interest; and, in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking fund, the sum of one million two hundred thousand dollars, or so much thereof as shall be necessary to make the five per centum of the net earnings of said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding. That there shall be carried to the credit of the said fund, on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the Government by said Union Pacific Railroad Company, not applied in liquidation of interest; and, in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking fund, the sum of eight hundred and fifty thousand dollars, or so much thereof as shall be necessary to make the five per centum of the net earnings of its said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding.

Credits and payments to sinking fund.

SEC. 5. That whenever it shall be made satisfactorily to appear to the Secretary of the Treasury, by either of said companies, that sev-

JOINT RESOLUTION OF APRIL 10, 1869.

16 Stat., 56.

JOINT RESOLUTION for the protection of the interests of the United States in the Union Pacific Railroad Company, the Central Pacific Railroad Company, and for other purposes.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the stockholders of the Union Pacific Railroad Company, at a meeting to be held on the twenty-second day of April, eighteen hundred and sixty-nine, at the city of Boston (with power to adjourn from day to day), shall elect a board of directors for the ensuing year; and said stockholders are hereby authorized to establish their general office at such place in the United States as they may select at said meeting: *Provided,* That the passage of this resolution shall not confer any other right upon said Union Pacific Railroad Company than to hold such election, or be held in any manner to relinquish or waive any rights of the United States to take advantage of any act or neglect of said Union Pacific Railroad Company heretofore done or omitted whereby the rights of the General Government have been or may be prejudiced: *And provided further,* That the common terminus of the Union Pacific and the Central Pacific Railroads shall be at or near Ogden; and the Union Pacific Railroad Company shall build, and the Central Pacific Railroad Company pay for and own the railroad from the terminus aforesaid to Promontory Summit, at which point the rails shall meet and connect and form one continuous line.

To establish
general office.

Other rights
conferred or
waived hereby.

Common terminus
of the Union
Pacific and Central
Pacific Railroad
to be at or near
Ogden, &c.

The President
to appoint a commission
to examine and report
upon the roads.

Expenses and
pay of commissioners.

Subsidy bonds
to be withheld
sufficient to secure
the full completion,
as a first-class road,
of all sections of
such road, &c.

If the amount
to be issued is
insufficient, &c.

Attorney-General
to institute
necessary suits.

Attorney-General
to investigate
whether the charter
of the Union Pacific
and Central Pacific
Railroads have not
been forfeited, &c.

To institute
criminal proceedings,
if, &c.

SEC. 2. *And be it further resolved,* That to ascertain the condition of the Union Pacific Railroad and the Central Pacific Railroad, the President of the United States is authorized to appoint a board of eminent citizens, not exceeding five in number, and who shall not be interested in either road, to examine and report upon the condition of, and what sum or sums, if any, will be required to complete each of said roads, for the entire length thereof, to the said terminus as a first-class railroad, in compliance with the several acts relating to said roads; and the expense of such board, including an allowance of ten dollars to each for their services for each day employed in such examination or report, to be paid equally by said companies.

SEC. 3. *And be it further resolved,* That the President is hereby authorized and required to withhold from each of said companies an amount of subsidy bonds authorized to be issued by the United States under said acts sufficient to secure the full completion as a first-class road of all sections of such road upon which bonds have already been issued, or in lieu of such bonds he may receive as such security an equal amount of the first-mortgage bonds of such company; and if it shall appear to the President that the amount of subsidy bonds yet to be issued to either of said companies is sufficient to insure the full completion of such road, he may make requisition upon such company for a sufficient amount of bonds already issued to said company, or in his discretion of their first-mortgage bonds, to secure the full completion of the same. And in default of obtaining such security as [is] in this section provided, the President may authorize and direct the Attorney-General to institute such suits and proceedings on behalf and in the name of the United States, in any court of the United States having jurisdiction, as shall be necessary or proper to compel the giving of such security, and thereby, or in any manner otherwise, to protect the interests of the United States in said road, and to insure the full completion thereof as a first-class road, as required by law and the statutes in that case made.

SEC. 4. *And be it further resolved,* That the Attorney-General of the United States be, and he is hereby, authorized and directed to investigate whether or not the charter and all the franchises of the Union Pacific Railroad Company and of the Central Pacific Railroad Company have not been forfeited, and to institute all necessary and proper legal proceedings; also to investigate whether or not said companies have or have not made any illegal dividends upon their stock, and if so to institute the necessary proceedings to have the same reimbursed; and also to investigate whether any of the directors or any other agents or employes of said companies have or not violated any penal law, and if so to institute the proper criminal proceedings against all persons who have violated such laws.

ACT OF MAY 6, 1870.

AN ACT to fix the point of junction of the Union Pacific Railroad Company and the Central Pacific Railroad Company. 16 Stat., 121.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the common terminus and point of junction of the Union Pacific Railroad Company and the Central Pacific Railroad Company shall be definitely fixed and established on the line of railroad as now located and constructed, northwest of the station at Ogden, and within the limits of the sections of land hereinafter mentioned, viz: Section thirty-six of township seven, of range two, situated north and west of the principal meridian and base line in the Territory of Utah, and sections twenty-five, twenty-six, and thirty-five of township seven, of range two, and section six of township six, and sections thirty and thirty-one of township seven, of range one, and sections one and two of township six, of range two, all situate north and west of said principal meridian and base line; and said companies are hereby authorized to enter upon, use, and possess said sections, which are hereby granted to them in equal shares, with the same rights, privileges, and obligations now by law provided with reference to other lands granted to said railroads: *Provided, however,* That the Secretary of the Interior shall designate a section of land in said township seven, of range two, belonging to said companies, and reserve the same for the benefit of schools in said Territory, in accordance with the act of February twenty-one, eighteen hundred and fifty-five, establishing the office of surveyor-general of Utah, and to grant land for school and university purposes: *Provided also,* That said companies shall pay for any additional lands acquired by this act at the rate of two dollars and fifty cents an acre: *And provided further,* That no rights of private persons shall be affected by this act.

Point of junction of the Union Pacific Railroad and the Central Pacific R. R. established northwest of the station at Ogden, &c.

Grant of certain sections.

Reserve for schools.

Price of land.

Private rights.

ACT OF FEBRUARY 24, 1871.

AN ACT to authorize the Union Pacific Railroad Company to issue its bonds to construct a bridge across the Missouri River at Omaha, Nebraska, and Council Bluffs, Iowa. 16 Stat., 490.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That for the more perfect connection of any railroads that are or shall be constructed to the Missouri River, at or near Council Bluffs, Iowa, and Omaha, Nebraska, the Union Pacific Railroad Company be, and it is hereby, authorized to issue such bonds, and secure the same by mortgage on the bridge and approaches and appurtenances, as it may deem needful to construct and maintain its bridge over said river, and the tracks and depots required to perfect the same, as now authorized by law of Congress; and said bridge may be so constructed as to provide for the passage of ordinary vehicles and travel, and said company may levy and collect tolls and charges for the use of the same; and for the use and protection of said bridge and property, the Union Pacific Railway Company shall be empowered, governed, and limited by the provisions of the act entitled "An act to authorize the construction of certain bridges, and to establish them as post-roads," approved July twenty-five, eighteen hundred and sixty-six, so far as the same is applicable thereto: *And provided,* That nothing in this act shall be so construed as to change the eastern terminus of the Union Pacific Railroad from the place where it is now fixed under existing laws, nor to release said Union Pacific Railroad Company, or its successors, from its obligation as established by existing laws: *Provided also,* That Congress shall at all times have power to regulate said bridge, and the rates for the transportation of freight and passengers over the same, and the local travel hereinbefore provided for. And the amount of bonds herein authorized shall not exceed two and a half millions of dollars: *Provided,* That if said bridge shall be constructed as a drawbridge, the same shall be constructed with spans of not less than two hundred feet in length in the clear on each side of the central or pivot pier of the draw.

Union Pacific Railroad Co. may issue bonds, &c., to construct, &c., a bridge across the Missouri River at Omaha.

Construction of bridge, tolls, &c.

Eastern terminus of railroad not to be changed.

Congress may regulate tolls and fares.

Amount of bonds.
Draws.

ACT OF MARCH 3, 1871.

Stat. 226. AN ACT making appropriations for the support of the Army for the year ending June 30, 1872, etc.

* * * * *

Secretary of Treasury to pay over to Pacific Railroad companies one-half of compensation, etc.

Sec. 9. That, in accordance with the fifth section of the act approved July two, eighteen hundred and sixty-four, entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes,' approved July first, eighteen hundred and sixty-two," the Secretary of the Treasury is hereby directed to pay over in money to the Pacific Railroad companies mentioned in said act, and performing services for the United States, one-half of the compensation at the rate provided by law for such services, heretofore or hereafter rendered:

Legal rights of parties not otherwise affected.

Provided, That this section shall not be construed to affect the legal rights of the Government or the obligations of the companies, except as herein specifically provided.

ACT OF MARCH 3, 1873.

17 Stat., 508. AN ACT making appropriations for the legislative, executive, and judicial expenses of the Government for the year ending June 30, 1874, and for other purposes.

* * * * *

Secretary of the Treasury to withhold payments to certain railroad companies for freight, etc.

Sec. 2. That the Secretary of the Treasury is directed to withhold all payments to any railroad company and its assigns, on account of freights or transportation, over their respective roads, of any kind, to the amount of payments made by the United States for interest upon bonds of the United States issued to any such company, and which shall not have been reimbursed, together with the five per cent of net earnings due and unapplied as provided by law; and any such company may bring suit in the Court of Claims to recover the price of such freight and transportation; and in such suit the right of such company to recover the same upon the law and the facts of the case shall be determined and

Companies may bring suit in Court of Claims.

Appeal to Supreme Court. Causes to have precedence.

also the rights of the United States upon the merits of all the points presented by it in answer thereto by them; and either party to such suit may appeal to the Supreme Court; and both said courts shall give such cause or causes precedence of all other business.

* * * * *

Attorney-General to bring suit in equity against the Union Pacific Railroad Company and all persons who, etc.

Sec. 4. That the Attorney-General shall cause a suit in equity to be instituted in the name of the United States against the Union Pacific Railroad Company, and against all persons who may, in their own names or through any agents, have subscribed for or received capital stock in said road, which stock has not been paid for in full in money, or who may have received, as dividends or otherwise, portions of the capital stock of said road, or the proceeds or avails thereof, or other property of said road, unlawfully and contrary to equity, or who may have received as profits or proceeds of contracts for construction or equipments of said road, or other contracts therewith, moneys or other property which ought, in equity, to belong to said railroad corporation, or who may, under pretense of having complied with the acts to which this is an addition, have wrongfully and unlawfully received from the United States bonds, moneys, or lands which ought, in equity, to be accounted for and paid to said railroad company or to the United States, and to compel payment for said stock, and the collection and payment of such moneys, and the restoration of such property, or its value, either to said railroad corporation or to the United States, whichever shall in equity be held entitled thereto. Said suit may be brought in the circuit court in any circuit, and all said parties may be made defendants in one suit. Decrees may be entered and enforced against any one or more parties defendant without awaiting the final determination of the cause against other parties. The court where said cause is pending may make such orders and decrees and issue such process as it shall deem necessary to bring in new parties or the representatives of parties deceased, or to carry into effect the purposes of this act. On filing the bill writs of subpoena may be issued by said court against any parties defendant, which writ shall run into any district, and shall be served, as other like process, by the marshal of such district. The

Suit to be brought in any circuit court. Decrees.

New parties, etc.

Writs of subpoena to run into any district, and how served.

books, records, correspondence, and all other documents of the Union Pacific Railroad Company, shall at all times be open to inspection by the Secretary of the Treasury, or such persons as he may delegate for that purpose. The laws of the United States providing for proceedings in bankruptcy shall not be held to apply to said corporation. No dividend shall hereafter be made by said company but from the actual net earnings thereof; and no new stock shall be issued, or mortgages or pledges made on the property or future earnings of the company, without leave of Congress, except for the purpose of funding and securing debt now existing, or the renewal thereof. No director or officer of said road shall hereafter be interested, directly or indirectly, in any contract therewith, except for his lawful compensation as such officer. Any director or officer who shall pay or declare, or aid in paying or declaring any dividend, or creating any mortgage or pledge prohibited by this act, shall be punished by imprisonment not exceeding two years, and by fine not exceeding five thousand dollars. The proper circuit court of the United States shall have jurisdiction to hear and determine all cases of mandamus to compel said Union Pacific Railroad Company to operate its road as required by law.

Books of the railroad company to be open to inspection.

Bankrupt laws not to apply.

Dividends, new stock, mortgages, etc.

No director to be interested in any contract, except, etc.

Penalty.

Jurisdiction of circuit court to issue mandamus.

ACT OF JUNE 20, 1874.

AN ACT making additions to the fifteenth section of the act approved July 2, 1864, entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes,' approved July 1, 1862."

18 Stat., 111.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and is hereby, added to the fifteenth section of the act approved July second, eighteen hundred and sixty-four, entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes,' approved July first, eighteen hundred and sixty-two," the following words, namely: "And any officer or agent of the companies authorized to construct the aforesaid roads, or of any company engaged in operating either of said roads, who shall refuse to operate and use the road or telegraph under his control, or which he is engaged in operating for all purposes of communication, travel, and transportation, so far as the public and the Government are concerned, as one continuous line, or shall refuse, in such operation and use, to afford and secure to each of said roads equal advantages and facilities as to rates, time, or transportation, without any discrimination of any kind in favor of, or adverse to, the road or business of any or either of said companies, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined in any sum not exceeding one thousand dollars, and may be imprisoned not less than six months. In case of failure or refusal of the Union Pacific Railroad Company, or either of said branches, to comply with the requirements of this act and the acts to which this act is amendatory, the party injured or the company aggrieved may bring an action in the district or circuit court of the United States in the territory, district, or circuit in which any portion of the road of the defendant may be situated, for damages on account of such failure or refusal; and, upon recovery, the plaintiff shall be entitled to judgment for treble the amount of all excess of freight and fares collected by the defendant, and for treble the amount of damages sustained by the plaintiff by such failure or refusal; and for each and every violation of or failure to comply with the requirements of this act, a new cause of action shall arise; and in case of suit in any such territory, district or circuit, process may be served upon any agent of the defendant found in the territory, district, or circuit in which such suit may be brought, and such service shall be by the court held to be good and sufficient; and it is hereby provided that for all the purposes of said act, and of the acts amendatory thereof, the railway of the Denver Pacific Railway and Telegraph Company shall be deemed and taken to be a part and extension of the road of the Kansas Pacific Railroad, to the point of junction thereof with the road of the Union Pacific Railroad at Cheyenne, as provided in the act of March third, eighteen hundred and sixty-nine.

Certain roads to be operated as continuous line with equal facilities.

Agents or officers to be fined in case of refusal.

Union Pacific Company to be sued in case of refusal.

Penalty fixed.

ACT OF JUNE 22, 1874.

18 Stat., 200. AN ACT providing for the collection of moneys due the United States from the Pacific Railroad Company.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and hereby is, directed to require payment of the railroad companies, their successors and assigns, or the successors or assigns of any or either of said companies, of all sums of money due or to become due, the United States for the five per centum of the net earnings provided for by the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, or by any other act or acts in relation to the companies therein named, or any other such company or companies, and in case either of said railroad companies shall neglect or refuse to pay the same within sixty days after demand therefor made upon the treasurer of such railroad company, the Secretary of the Treasury shall certify that fact to the Attorney-General, who shall thereupon institute the necessary suits and proceedings to collect and otherwise obtain redress in respect of the same in the proper circuit courts of the United States, and prosecute the same, with all convenient dispatch to a final determination.

Secretary of the Treasury to demand five per cent of net earnings.

Attorney-General to bring suit.

ACT OF MARCH 3, 1875.

18 Stat., 458. AN ACT making appropriations for the support of the Army for the fiscal year ending June thirtieth, eighteen hundred and seventy-six, and for other purposes.

Provided, That no money shall hereafter be paid to any railroad company for the transportation of any property or troops of the United States over any railroad which, in whole or in part, was constructed by the aid of a grant of public land, on the condition that such railroad should be a public highway for the use of the Government of the United States, from toll or other charge, or upon any other conditions for the use of such road, for such transportation; nor shall any allowance be made for the transportation of officers of the Army over any such road when on duty and under orders as military officers of the United States. But nothing herein contained shall be construed as preventing any such railroad from bringing a suit in the Court of Claims for the charges for such transportation, and recovering for the same if found entitled thereto, by virtue of the laws in force prior to the passage of this act; provided that the claim for such charges shall not have been barred by the statute of limitations at the time of bringing the suit, and either party shall have the right of appeal to the Supreme Court of the United States: *And provided further,* That the foregoing provision shall not apply for the current fiscal year, nor thereafter, to roads where the sole condition of transportation is that the company shall not charge the Government higher rate than they do individuals for like transportation, and when the Quartermaster-General shall be satisfied that this condition has been faithfully complied with.

No payment for transportation of troops, &c., to railroads, receiving land grants, etc.

No allowance for transportation of officers on duty.

Right of companies to sue in Court of Claims.

Statute of limitations. Appeal. Proviso.

ACT OF APRIL 30, 1878.

20 Stat., 44. AN ACT to provide for deficiencies in the appropriations for the service of the government for the fiscal year ending June thirtieth, eighteen hundred and seventy-eight; and for prior years for subsistence of the Army, and for other purposes.

* * * * *

WAR DEPARTMENT.

TRANSPORTATION.—To enable the Secretary of War to pay for transportation of the Army, including baggage of the troops when moving either by land or water; of clothing and camp and garrison equipage from the depots of Philadelphia and Jeffersonville to the several posts of Army.

and Army depots, and from those depots to the troops in the field; of horse-equipments and of subsistence stores from the places of purchase and from the places of delivery, under contract, to such places as the circumstances of the service may have required them to be sent; of ordnance, ordnance stores, and small arms from the founderies and armories to the arsenals, fortifications, frontier posts, and Army depots; freights, wharfage, tolls, and ferriages; the purchase and hire of horses, mules, oxen, and harness, and the purchase and repair of wagons, carts, and drays, and of ships, and other sea-going vessels and boats required for the transportation of supplies and for garrison purposes; for drayage and cartage at the several posts; hire of teamsters; transportation of funds for the pay and other disbursing departments; the expense of sailing public transports on the various rivers, the Gulf of Mexico, and the Atlantic and Pacific; for procuring water at such posts as, from their situation, require it to be brought from a distance; and for clearing roads, and for removing obstructions from roads, harbors, and rivers, to the extent which has been required for the actual operations of the troops in the field, one million two hundred thousand dollars, being a deficiency for the fiscal year ending June thirtieth, eighteen hundred and seventy-seven: *Provided, however,* That no part of this sum shall be paid to any railroad company or to its assigns on account of freights or transportation over their respective roads unless there be an excess due such company after charging the amount of payments made by the United States for interest upon bonds of the United States issued to any such company; but the same shall be paid to the Secretary of the Treasury, to be by him withheld, as directed by existing law.

Railway companies.
Interest on bonds to be deducted.

* * * * *

ACT OF MAY 7, 1878.

AN ACT to alter and amend the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and for other purposes," approved July first, eighteen hundred and sixty-two, and also to alter and amend the act of Congress approved July second, eighteen hundred and sixty-four, in amendment of said first-named act.

20 Stat., 56.

Whereas, on the first day of July, anno Domini eighteen hundred and sixty-two, Congress passed an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes; and

Preamble.

Whereas, afterward, on the second day of July, Anno Domini eighteen hundred and sixty-four, Congress passed an act in amendment of said first-mentioned act; and

Whereas, the Union Pacific Railroad Company, named in said acts, and under the authority thereof, undertook to construct a railway, after the passage thereof, over some part of the line mentioned in said acts; and

Whereas, under the authority of the said two acts, the Central Pacific Railroad Company of California, a corporation existing under the laws of the State of California, undertook to construct a railway, after the passage of said acts, over some part of the line mentioned in said acts; and

Whereas, the United States upon demand of said Central Pacific Railroad Company, have heretofore issued, by way of a loan, and as provided in said acts, to and for the benefit of said company, in aid of the purposes named in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half-yearly, to the amount of twenty-five million eight hundred and eighty-five thousand one hundred and twenty dollars, which said bonds have been sold in the market or otherwise disposed of by said company; and

Whereas, the said Central Pacific Company has issued and disposed of an amount of its own bonds equal to the amount so issued by the United States, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas, after the passage of said acts, the Western Pacific Railroad Company, a corporation then existing under the laws of California, did, under the authority of Congress, become the assignee of the rights, duties, and obligations of the said Central Pacific Railroad Company, as provided in the act of Congress passed on the third of March, anno Domini eighteen hundred and sixty-five, and did, under the authority of the said act and of the acts aforesaid, construct a railroad from the city of San José to the city of Sacramento, in California, and did demand and receive from the United States the sum of one million nine hundred and seventy thousand five hundred and sixty dollars of the bonds of the United States, of the description before mentioned as issued to the Central Pacific Company, and in the same manner and under the provisions of said acts; and upon and in respect of the bonds so issued to both said companies, the United States have paid interest to the sum of more than thirteen and a half million dollars, which has not been reimbursed; and

Whereas said Western Pacific Railroad Company has issued and disposed of an amount of its own bonds equal to the amount so issued by the United States to it, and secured the same by mortgage, which are, if lawfully issued and disposed of, a prior and paramount lien to that of the United States, as stated and secured thereby; and

Whereas said Western Pacific Railroad Company has since become merged in, and consolidated with, said Central Pacific Railroad Company, under the name of the Central Pacific Railroad Company, whereby the said Central Pacific Railroad Company has become liable to all the burdens, duties, and obligations before resting upon said Western Pacific Railroad Company; and divers other railroad companies have been merged in and consolidated with said Central Pacific Railroad Company; and

Whereas the United States, upon the demand of the said Union Pacific Railroad Company, have heretofore issued by way of loan to it and as provided in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half-yearly, the principal sums of which amount to twenty-seven million two hundred and thirty-six thousand five hundred and twelve dollars; on which the United States have paid over ten million dollars interest over and above all reimbursements; which said bonds have been sold in the market or otherwise disposed of by said corporation; and

Whereas said corporation has issued and disposed of an amount of its own bonds equal to the amounts so issued to it by the United States as aforesaid, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas the total liabilities (exclusive of interest to accrue) to all creditors, including the United States, of the said Central Pacific Company, amount in the aggregate to more than ninety-six million dollars, and those of the said Union Pacific Railroad Company to more than eighty-eight million dollars; and

Whereas the United States, in view of the indebtedness and operations of said several railroad companies respectively, and of the disposition of their respective incomes, are not and can not, without further legislation, be secure in their interests in and concerning said respective railroads and corporations, either as mentioned in said acts or otherwise; and

Whereas a due regard to the rights of said several companies respectively, as mentioned in said act of eighteen hundred and sixty-two, as well as just security to the United States in the premises, and in respect of all the matters set forth in said act, require that the said act of eighteen hundred and sixty-two be altered and amended as hereinafter enacted; and

Whereas, by reason of the premises also, as well as for other causes of public good and justice, the powers provided and reserved in said act of eighteen hundred and sixty-four for the amendment and alteration thereof ought also to be exercised as hereinafter enacted: Therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the net earnings mentioned in said act of eighteen hundred and sixty-two, of said railroad com-

Net earnings.

panies respectively, shall be ascertained by deducting from the gross amount of their earnings, respectively, the necessary expenses actually paid within the year in operating the same and keeping the same in a state of repair, and also the sum paid by them respectively within the year in discharge of interest on their first-mortgage bonds, whose lien has priority over the lien of the United States, and excluding from consideration all sums owing or paid by said companies respectively for interest upon any other portion of their indebtedness; and the foregoing provision shall be deemed and taken as an amendment of said act of eighteen hundred and sixty-four, as well as of said act of eighteen hundred and sixty-two. This section shall take effect on the thirtieth day of June next, and be applicable to all computations of net earnings thereafter; but it shall not affect any right of the United States or of either of said railroad companies existing prior thereto.

How to be ascertained.

Date of effect.

SEC. 2. That the whole amount of compensation which may, from time to time, be due to said several railroad companies respectively for services rendered for the Government shall be retained by the United States, one-half thereof to be presently applied to the liquidation of the interest paid and to be paid by the United States upon the bonds so issued by it as aforesaid, to each of said corporations severally, and the other half thereof to be turned into the sinking fund hereinafter provided, for the uses therein mentioned.

Compensation retained; how applied.

SEC. 3. That there shall be established in the Treasury of the United States a sinking fund, which shall be invested by the Secretary of the Treasury in bonds of the United States; and the semiannual income thereof shall be in like manner from time to time invested, and the same shall accumulate and be disposed of as hereinafter mentioned. And in making such investments the Secretary shall prefer the five per centum bonds of the United States, unless for good reasons appearing to him, and which he shall report to Congress, he shall at any time deem it advisable to invest in other bonds of the United States. All the bonds belonging to said fund shall, as fast as they shall be obtained, be so stamped as to show that they belong to said fund, and that they are not good in the hands of other holders than the Secretary of the Treasury until they shall have been indorsed by him, and publicly disposed of pursuant to this act.

Sinking fund. (Amended by section 5 of act of March 3, 1867.)

SEC. 4. That there shall be carried to the credit of the said fund on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the Government by said Central Pacific Railroad Company, not applied in liquidation of interest; and, in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking fund, the sum of one million two hundred thousand dollars, or so much thereof as shall be necessary to make the five per centum of the net earnings of said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding. That there shall be carried to the credit of the said fund, on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the Government by said Union Pacific Railroad Company, not applied in liquidation of interest; and, in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking fund, the sum of eight hundred and fifty thousand dollars, or so much thereof as shall be necessary to make the five per centum of the net earnings of its said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding.

Credits and payments to sinking fund.

SEC. 5. That whenever it shall be made satisfactorily to appear to the Secretary of the Treasury, by either of said companies, that sev-

enty-five per centum of its net earnings, as hereinbefore defined, for any current year are or were insufficient to pay the interest for such year upon the obligation of such company, in respect of which obligations there may exist a lien paramount to that of the United States, and that such interest has been paid out of such net earnings, said Secretary is hereby authorized, and it is made his duty, to remit for such current year so much of the twenty-five per centum of net earnings required to be paid into the sinking fund, as aforesaid, as may have been thus applied and used in the payment of interest as aforesaid.

Dividends prohibited, when.

Sec. 6. That no dividend shall be voted, made, or paid for or to any stockholder or stockholders in either of said companies, respectively, at any time when the said company shall be in default in respect of the payment either of the sums required as aforesaid to be paid into said sinking fund, or in respect of the payment of the said five per centum of the net earnings, or in respect of interest upon any debt the lien of which, or of the debt on which it may accrue, is paramount to that of the United States; and any officer or person who shall vote, declare, make, or pay, and any stockholder of any of said companies who shall receive any such dividend contrary to the provisions of this act, shall be liable to the United States for the amount thereof, which, when recovered, shall be paid into said sinking fund. And every such officer, person, or stockholder who shall knowingly vote, declare, make, or pay any such dividend, contrary to the provisions of this act, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding ten thousand dollars, and by imprisonment not exceeding one year.

Penalties.

Sec. 7. That the said sinking fund so established and accum[ul]ated shall at the maturity of such bonds so respectively issued by the United States, be applied to the payment and satisfaction thereof, according to the interest and proportion of each of said companies in said fund, and of all interest paid by the United States thereon, and not reimbursed, subject to the provisions of the next section.

Application of sinking fund.

Sec. 8. That said sinking fund so established and accumulated shall, according to the interest and proportion of said companies, respectively, therein, be held for the protection, security, and benefit of the lawful and just holders of any mortgage or lien debts of such companies, respectively, lawfully paramount to the rights of the United States, and for the claims of other creditors, if any, lawfully chargeable upon the funds so required to be paid into said sinking fund, according to their respective lawful priorities, as well as for the United States, according to the principles of equity, to the end that all persons having any claim upon said sinking fund may be entitled thereto in due order; but the provisions of this section shall not operate or be held to impair any existing legal right, except in the manner in this act provided, of any mortgage, lien, or other creditor of any of said companies, respectively, nor to excuse any of said companies, respectively, from the duty of discharging, out of other funds, its debts to any creditor except the United States.

United States lien on all property of the R. R. companies.

Sec. 9. That all sums due to the United States from any of said companies, respectively, whether payable presently or not, and all sums required to be paid to the United States or into the Treasury, or into said sinking fund under this act or under the acts hereinbefore referred to, or otherwise, are hereby declared to be a lien upon all the property, estate, rights, and franchises of every description granted or conveyed by the United States to any of said companies, respectively or jointly, and also upon all the estate and property, real, personal, and mixed, assets, and income of the said several railroad companies, respectively, from whatever source derived, subject to any lawfully prior and paramount mortgage, lien, or claim thereon. But this section shall not be construed to prevent said companies, respectively, from using and disposing of any of their property or assets in the ordinary, proper, and lawful course of their current business, in good faith and for valuable consideration.

Proceedings against the companies.

Sec. 10. That it is hereby made the duty of the Attorney-General of the United States to enforce, by proper proceedings against the several railroad companies, respectively or jointly, or against either of them, and others, all the rights of the United States under this act and under the acts hereinbefore mentioned, and under any other act of Congress

or right of the United States; and in any suit or proceedings already commenced, or that may be hereafter commenced, against any of said companies, either alone or with other parties, in respect of matters arising under this act, or under the acts or rights hereinbefore mentioned or referred to, it shall be the duty of the court to determine the very right of the matter without regard to matters of form, joinder of parties, multifariousness, or other matters not affecting the substantial rights and duties arising out of the matters and acts hereinbefore stated and referred to.

SEC. 11. That if either of said railroad companies shall fail to perform all and singular the requirements of this act and of the acts hereinbefore mentioned, and of any other act relating to said company, to be by it performed, for the period of six months next after such performance may be due, such failure shall operate as a forfeiture of all the rights, privileges, grants, and franchises derived or obtained by it from the United States; and it shall be the duty of the Attorney-General to cause such forfeiture to be judicially enforced.

Forfeiture.

SEC. 12. That nothing in this act shall be construed or taken in any wise to affect or impair the right of Congress at any time hereafter further to alter, amend, or repeal the said acts hereinbefore mentioned; and this act shall be subject to alteration, amendment, or repeal, as in the opinion of Congress, justice or the public welfare may require. And nothing herein contained shall be held to deny, exclude, or impair any right or remedy in the premises now existing in favor of the United States.

Right of Congress to further amend.

SEC. 13. That each and every of the provisions in this act contained shall severally and respectively be deemed, taken, and held as in alteration and amendment of said act of eighteen hundred and sixty-two and of said act of eighteen hundred and sixty-four, respectively, and of both said acts.

ACT OF JUNE 19, 1878.

AN ACT to create an Auditor of Railroad Accounts, and for other purposes.¹

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section twenty of the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, anno Domini eighteen hundred and sixty-two, and the act entitled "An act relative to filing reports of railroad companies," approved June twenty-fifth, anno Domini eighteen hundred and sixty-eight, be, and the same are hereby, repealed.

20 Stat., 169.
Repeal of prior laws.

SEC. 2. That the office of Auditor of Railroad Accounts is hereby established as a bureau of the Interior Department. The said Auditor shall be appointed by the President of the United States, by and with the advice and consent of the Senate. The annual salary of the said Auditor shall be, and is hereby, fixed at the sum of five thousand dollars. To assist the said Auditor to perform the duties of said office, the Secretary of the Interior shall appoint one bookkeeper at an annual salary of two thousand four hundred dollars, one assistant bookkeeper at an annual salary of two thousand dollars, one clerk at an annual salary of one thousand four hundred dollars, and one copyist at an annual salary of nine hundred dollars. Actual and necessary traveling and other expenses incurred in visiting the offices of the railroad companies hereinafter described, and for which vouchers shall be rendered, are hereby allowed, not to exceed the sum of two thousand dollars per annum; and it is hereby specially provided that each of said railroad companies shall furnish transportation over its own road, without expense to the United States, for the said Auditor, or any person acting under his direction. Incidental expenses for books, stationery, and other material necessary for the use of said bureaus are hereby allowed, not to exceed the sum of seven hundred dollars per annum. And the sum of twelve thousand dollars is hereby appropriated for the uses and purposes of this act for the fiscal year ending June thirtieth, anno Domini eighteen hundred and seventy-nine.

Organization of bureau.

¹Title changed to Commissioner of Railroads. Act March 3, 1881 (21 Stat., 409).

Duties of Auditor. SEC. 3. That the duties of the said Auditor under and subject to the direction of the Secretary of the Interior shall be to prescribe a system of reports to be rendered to him by the railroad companies whose roads are in whole or in part west, north, or south of the Missouri River, and to which the United States have granted any loan or credit or subsidy in bonds or lands; to examine the books and accounts of each of said railroad companies once in each fiscal year, and at such other times as may be deemed by him necessary to determine the correctness of any report received from them; to assist the Government directors of any of said railway companies in all matters which come under their cognizance whenever they may officially request such assistance; to see that the laws relating to said companies are enforced; to furnish such information to the several departments of the Government in regard to tariffs for freight and passengers and in regard to the accounts of said railroad companies as may be by them required, or, in the absence of any request therefor, as he may deem expedient for the interest of the Government; and to make an annual report to the Secretary of the Interior, on the first day of November, on the condition of each of said railroad companies, their road, accounts, and affairs, for the fiscal year ending June thirtieth immediately preceding.

R. R. companies to report, &c. SEC. 4. That each and every railroad company aforesaid which has received from the United States any bonds of the said United States, issued by way of loan to aid in constructing or furnishing its road, or which has received from the United States any lands, granted to it for a similar purpose, shall make to the said Auditor any and all such reports as he may require from time to time and shall submit its books and records to the inspection of said Auditor or any person acting in his place and stead, at any time that the said Auditor may request, in the office where said books and records are usually kept; and the said Auditor, or his authorized representative, shall make such transcripts from the said books and records as he may desire.

Penalty for neglect or refusal. SEC. 5. That if any railroad company aforesaid shall neglect or refuse to make such reports as may be called for, or refuse to submit its books and records to inspection, as provided in section four of this act, such neglect or refusal shall operate as a forfeiture, in each case of such neglect or refusal, of a sum not less than one thousand nor more than five thousand dollars, to be recovered by the Attorney-General of the United States, in the name and for the use and benefit of the United States; and it shall be the duty of the Secretary of the Interior, in all such cases of neglect or refusal as aforesaid, to inform the Attorney-General of the facts, to the end that such forfeiture or forfeitures may be judicially enforced.

Application of act. SEC. 6. This act shall apply to any and all persons or corporations into whose hands either of said railroads may lawfully come, as well as to the original companies.

Date of effect. SEC. 7. This act shall take effect on and after the first day of July, anno Domini eighteen hundred and seventy-eight.

ACT OF MARCH 3, 1879

20 Stat., 420. AN ACT making appropriations to supply deficiencies in the appropriations for the fiscal year ending June thirtieth, eighteen hundred and seventy-nine and for prior years, and for those heretofore treated as permanent, and for other purposes.

* * * * *

POST-OFFICE DEPARTMENT.

* * * * *

Settlement of accounts of Pacific railways. That for the proper adjustments of the accounts of the Union Pacific, Central Pacific, Kansas Pacific, Western Pacific, and Sioux City and Pacific Railroad companies, respectively, for services which have been or may hereafter be performed for the Government for transportation of the Army and transportation of the mails, the Secretary of the Treasury is hereby authorized to make such entries upon the books of the Department as will carry to the credit of said companies the amount so earned or to be earned by them during each fiscal year and withheld under the provisions of section fifty-two

hundred and sixty of the Revised Statutes and of the act of Congress approved May seventh, eighteen hundred and seventy-eight: *Provided*, That this shall not authorize the expenditure of any money from the Treasury nor change the method now provided by law for the auditing of such claims against the Government: *Provided further*, That this paragraph shall not be so construed as to be a disposition of any moneys due to or to become due to or from said companies respectively, or to, in any way, affect their rights or duties or the rights of the United States, under existing laws, it being only intended hereby to enable the proper accounting officers to state on the books of the Treasury the accounts between the Government and said companies respectively.

R. S., 5260.
1878. ch. 75,
ante. 44.

Proviso.
No change of
rights, &c.

* * * * *

ACT OF MARCH 1, 1881.

AN ACT making appropriations for the service of the Post-Office Department for the fiscal year ending June 30, 1882, and for other purposes. 21 Stat., 375.

* * * * *

For railway post-office car service, one million four hundred and twenty-six thousand dollars. And hereafter when any railroad company fail or refuse to provide railway post-office cars when required by the Post-Office Department, or shall fail or refuse to provide suitable safety heaters and safety lamps therefor, with such number of saws and axes to each car for use in case of accident as may be required by the Post-Office Department, said company shall have its pay reduced ten per centum on the rates fixed in section four thousand and two of the Revised Statutes, as amended by act of July twelfth, eighteen hundred and seventy-six, entitled "An act making appropriations for the service of the Post-Office Department for the fiscal year ending June thirtieth, eighteen hundred and seventy-seven, and for other purposes," and as further amended by the act of June seventeenth, eighteen hundred and seventy-eight, entitled "An act making appropriations for the service of the Post-Office Department for the fiscal year ending June thirtieth, eighteen hundred and seventy-nine, and for other purposes."

Railway post-office car service.
Penalty for not providing railway post-office cars.

R. S., 4002, 1876,
ch. 179; 19 Stat.
78.

ACT OF MARCH 3, 1881.

AN ACT making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1882, and for other purposes. 21 Stat., 409.

* * * * *

OFFICE OF AUDITOR OF RAILROAD ACCOUNTS.—For Auditor, who shall hereafter be styled Commissioner of Railroads, four thousand five hundred dollars, &c.

* * * * *

ACT OF JUNE 30, 1882.

AN ACT making appropriations for the support of the Army for the fiscal year ending June 30, 1883, and for other purposes. 22 Stat., 120.

For the payment for Army transportation lawfully due such land-grant railroads as have not received aid in Government bonds, to be adjusted by the proper accounting officers in accordance with the decisions of the Supreme Court in cases decided under such land-grant acts, but in no case shall more than fifty per centum of the full amount of the service be paid, one hundred and twenty-five thousand dollars: *Provided*, That such compensation shall be computed upon the basis of the tariff rates for like transportation performed for the public at large, and shall be accepted as in full for all demands for said services: *And provided further*, That any such land-grant roads as shall file with the Secretary of the Treasury their written acceptance of this provision shall hereafter be paid for like service as herein provided; and all accounts of such railroads for services heretofore rendered shall be audited and paid as herein provided upon application of such roads and their acceptance of such sum in full of all claims of such services: and all laws inconsistent herewith are hereby repealed.

Payment to land-grant railroads for transportation.

ACT OF MARCH 3, 1867.

24 Stat. 488. AN ACT authorizing an investigation of the books, accounts, and methods of railroads which have received aid from the United States, and for other purposes.

* * * * *

Proceedings to protect the rights, etc., of the United States.

Sec. 4. That whenever, in the opinion of the President, it shall be deemed necessary to the protection of the interests and the preservation of the security of the United States in respect of its lien, mortgage, or other interest in any of the property of any or all of the several companies upon which a lien, mortgage, or other incumbrance paramount to the right, title or interest of the United States for the same property, or any part of the same, may exist and be then lawfully liable to be enforced, the Secretary of the Treasury shall, under the direction of the President, redeem or otherwise clear off such paramount lien, mortgage, or other incumbrance by paying the sums lawfully due in respect thereof out of the Treasury; and the United States shall thereupon become and be subrogated to all rights and securities theretofore pertaining to the debt, mortgage, lien, or other incumbrance in respect of which such payment shall have been made. It shall be the duty of the Attorney General, under the direction of the President, to take all such steps and proceedings, in the courts and otherwise, as shall be needful to redeem such lien, mortgage, or other incumbrance, and to protect and defend the rights and interests of the United States in respect of the matters in this section mentioned, and to take steps to foreclose any mortgage or lien of the United States on any such railroad property.

Investment of sinking funds.

Sec. 5. That the sinking funds which are or may be held in the Treasury for the security of the indebtedness of either or all of said railroad companies may, in addition to the investments now authorized by law, be invested in any bonds of the United States heretofore issued for the benefit of either or all of said companies, or in any of the first-mortgage bonds of either of said companies which have been issued under the authority of any law of the United States and secured by mortgages of their roads and franchises, which by any law of the United States have been made prior and paramount to the mortgage, lien, or other security of the United States in respect of its advances to either of said companies as provided by law.

LAWS RELATING TO THE NORTHERN PACIFIC RAILROAD.

ACT OF JULY 2, 1864.

13 Stat., 365. AN ACT granting lands to aid in the construction of a railroad and telegraph line from Lake Superior to Pugets Sound, on the Pacific coast, by the northern route.

Northern Pacific Railroad Company incorporated.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Richard D. Rice, John A. Poore, Samuel P. Strickland, Samuel C. Fessenden, * * * and all

Name.

such other persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic, in deed and in law, by the name, style, and title of the "Northern Pacific Railroad Company," and by that name shall have perpetual succession, and shall be able to sue and be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal. And said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances, namely, beginning at a point on Lake Superior, in the State of Minnesota or Wisconsin; thence westerly by the most eligible railroad route, as shall be determined by said company, within the territory of the United States on a line north of the forty-fifth degree of latitude to some point on Pugets Sound, with a branch, via the valley of the Columbia River, to a point at or near Portland, in the State of Oregon, leaving the main trunk line at the most suitable place, not more than three hundred miles from its western terminus; and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all

Empowered to lay out, construct, and enjoy a continuous railroad and telegraph line.

From Lake Superior, on a line north of the 45th degree of latitude, to Pugets Sound.

Right to construct a branch to Portland, Oreg.

Capital stock \$100,000,000.

respects be deemed personal property, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons hereinbefore named are hereby appointed commissioners, and shall be called the Board of Commissioners of the "Northern Pacific Railroad Company," and fifteen shall constitute a quorum for the transaction of business. The first meeting of said board of commissioners shall be held at the Melodion Hall, in the city of Boston, at such time as any five commissioners herein named from Massachusetts shall appoint, not more than three months after the passage of this act, notice of which shall be given by them to the other commissioners by publishing said notice in at least one daily newspaper in the cities of Boston, New York, Philadelphia, Cincinnati, Milwaukee, and Chicago, once a week at least four weeks previous to the day of meeting. Said board shall organize by the choice from its number of a president, vice president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, signed by him, and the oath verified thereon. The president and secretary of said board shall in like manner call all other meetings naming the time and place thereof. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times, and in such principal cities or other places in the United States, as they, or a quorum of them, shall determine, within six months after the passage of this act, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions and to receipt therefor. So soon as twenty thousand shares shall in good faith be subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened, at least fifteen days previous to the day of meeting, and such subscribers as shall attend the meetings so called, either in person or by lawful proxy, then and there shall elect by ballot thirteen directors for said corporation; and in such election each share of said capital stock shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners, and, in case of their absence or inability, any two of the officers of said board, shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioners, the treasurer, and secretary, shall then deliver over to said directors all the properties, subscription books and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them, shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. Annual meetings of the stockholders of the said corporation for the choice of officers (when they are to be chosen) and for the transaction of business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Sec. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to said "Northern Pacific Railroad Company," its successors and assigns, for the construction of a railroad and telegraph as proposed; and the right, power, and authority is hereby given to said corporation to take from the public lands, adjacent to the line of said road, material of earth, stone, timber, and so forth, for the construction thereof. Said way is granted to said railroad to the extent of two hundred feet in width on each side of said railroad where it may pass through the public domain, including all necessary ground for station building, workshops, depots, machine-shops, switches, side tracks, turntables, and water stations; and the right of way shall be exempt from taxation within the Territories of the United States. The United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the said Indians, the Indian titles to all lands falling under the operation of this act, and acquired in the donation to the [road] named in this bill.

Sec. 3. *And be it further enacted*, That there be, and hereby is, granted

Board of Commissioners appointed.

First meeting of commissioners to be held in Boston, Mass.

Officers to be chosen from the board of commissioners.

Books of subscriptions to be opened in such cities as the board may determine.

First meeting of subscribers to capital stock.

Thirteen directors to be elected by stockholders.

Commissioners to deliver to directors all properties, etc.

Annual meetings to be held as prescribed by by-laws.

Grant of right of way.

Authority to take from adjacent lands material for construction.

Right of way 200 feet in width on each side of said railroad.

Right of way exempt from taxation.

Indian title to be extinguished by the United States.

Grant of land.

to the "Northern Pacific Railroad Company," its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway, every alternate section of public land, not mineral, designated by odd numbers, to the amount of

Forty sections
per mile in the
Territories.

Twenty sec-
tions per mile in
the States.

Other lands in
lieu of those re-
served, etc.

Land limits.
If route is upon
the line of any
other aided road
former grant
shall be deduct-
ed.

Road having
previous grant
may assign.

"Mineral"
lands not grant-
ed.

Agricultural
lands may be se-
lected in lieu of
mineral lands.

"Mineral"
does not include
iron or coal.

The President
to appoint three
commissioners to
examine road

Commissioners
to report to the
President

Proviso as to
lands in Minne-
sota.

Proviso as to
road previously
built.

Road to be con-
structed as a
"first-class" rail-
road.

twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and whenever on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from preemption, or other claims or rights, at the time the line of said road is definitely fixed, and plat thereof filed in the office of the Commissioner of the General Land Office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or preempted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections: *Provided*, That if said route shall be found upon the line of any other railroad route to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: *Provided further*, That the railroad company receiving the previous grant of land may assign their interest to said "Northern Pacific Railroad Company," or may consolidate, confederate, and associate with said company upon the terms named in the first section of this act: *Provided further*, That all mineral lands be, and the same are hereby, excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands, in odd-numbered sections, nearest to the line of said road may be selected as above provided; *And provided further*, That the word "mineral," when it occurs in this act, shall not be held to include iron or coal: *And provided further*, That no money shall be drawn from the Treasury of the United States to aid in the construction of the said "Northern Pacific Railroad."

SEC. 4. *And be it further enacted*, That whenever said "Northern Pacific Railroad Company" shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated the President of the United States shall appoint three commissioners to examine the same, and if it shall appear that twenty-five consecutive miles of said road and telegraph line have been completed in a good, substantial, and workmanlike manner, as in all other respects required in this act, the commissioners shall so report to the President of the United States, and patents of lands as aforesaid shall be issued to said company, confirming to said company the right and title to said lands, situated opposite to, and conterminous with, said completed section of said road; and, from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed: *Provided*, That no more than ten sections of land per mile, as said road shall be completed, shall be conveyed to said company for all that part of said railroad lying east of the western boundary of the State of Minnesota, until the whole of said railroad shall be finished and in good running order as a first-class railroad from the place of beginning on Lake Superior to the western boundary of Minnesota: *Provided also*, That lands shall not be granted under the provisions of this act on account of any railroad, or part thereof, constructed at the date of the passage of this act.

SEC. 5. *And be it further enacted*, That said Northern Pacific Railroad shall be constructed in a substantial and workmanlike manner with all the necessary draws, culverts, bridges, viaducts, crossings, turnouts, stations and watering places, and all other appurtenances, including

furniture and rolling stock, equal in all respects to railroads of the first class when prepared for business, with rails of the best quality, manufactured from American iron. And a uniform gauge shall be established throughout the entire length of the road. And there shall be constructed a telegraph line of the most substantial and approved description, to be operated along the entire line: *Provided*, That the said company shall not charge the Government higher rates than they do individuals for like transportation and telegraphic service. And it shall be the duty of the Northern Pacific Railroad Company to permit any other railroad which shall be authorized to be built by the United States, or by the legislature of any Territory or State in which the same may be situated, to form running connections with it, on fair and equitable terms.

§ 6. *And be it further enacted*, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road, after the general route shall be fixed, and as fast as may be required by the construction of said railroad; and the odd sections of land hereby granted shall not be liable to sale, or entry, or preemption before or after they are surveyed, except by said company, as provided in this act; but the provisions of the act of September, eighteen hundred and forty-one, granting preemption rights, and the acts amendatory thereof, and of the act entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, shall be, and the same is hereby, extended to all other lands on the line of said road, when surveyed, excepting those hereby granted to said company. And the reserved alternate sections shall not be sold by the Government at a price less than two dollars and fifty cents per acre, when offered for sale.

§ 7. *And be it further enacted*, That the said "Northern Pacific Railroad Company" be, and is hereby, authorized and empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary or proper for the construction and working of said road, not exceeding in width two hundred feet on each side of the line of its railroad, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road. And the said company shall have the right to cut and remove trees and other material that might, by falling, encumber its roadbed, though standing or being more than two hundred feet from the line of said road. And in case the owner of such lands or premises and the said company can not agree as to the value of the premises taken or to be taken for the use of said road, the value thereof shall be determined by the appraisal of three disinterested commissioners, who may be appointed upon application by either party to any court of record in any of the Territories in which the lands or premises to be taken lie; and said commissioners, in their assessment of damages, shall appraise such premises at what would have been the value thereof if the road had not been built. And upon return into court of such appraisement, and upon the payment into the same of the estimated value of the premises taken for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purpose aforesaid. And either party feeling aggrieved at said appraisement may, within thirty days after the same has been returned into court, file an appeal therefrom and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken or to do any act necessary and proper in the construction of its road. And said party appealing shall give bonds, with sufficient surety or sureties, for the payment of any cost that may arise upon such appeal; and in case the party appealing does not obtain a verdict increasing or diminishing, as the case may be, the award of the commissioners, such party shall pay the whole cost incurred by the appellee, as well as his own, and the payment into court, for the use of the owner of said premises taken, of a sum equal to that finally awarded, shall be held to vest in said company the title of said land and of the right

Rails of American iron. (See res. 16 Stat. 378.)

Gauge to be uniform.

Telegraph line.

Condition as to charges for Government transportation and telegraphic service.

Other roads may form running connections on equitable terms.

Lands to be surveyed as fast as construction of road may require.

Government lands not to be sold for less than \$2.50 per acre.

Authorizes company to take any lands necessary for construction of its road.

200 feet on each side.

Lands for depots, etc.

Damages to be determined by commissions.

Procedure

to use and occupy the same for the construction, maintenance, and operation of said road. And in case any of the lands to be taken, as aforesaid, shall be held by any infant, femme covert, non compos, insane person, or persons residing without the Territory within which the lands to be taken lie, or person subjected to any legal disability, the court may appoint a guardian for any party under any disqualification, to appear in proper person, who shall give bonds, with sufficient surety or sureties, for the proper and faithful execution of his trust, and who may represent in court the person disqualified, as aforesaid, from appearing, when the same proceedings shall be had in reference to the appraisal of the premises to be taken for the use of said company, and with the same effect as has been already described; and the title of the company to the lands taken by virtue of this act shall not be affected or impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case any party shall have a right or claim to any land for a term of years, or any interest therein, in possession, reversion, or remainder, the value of any such estate, less than a fee simple, shall be estimated and determined in the manner hereinbefore set forth. And in case it shall be necessary for the company to enter upon any lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purposes of said railroad, and may institute proceedings, in manner described, for the purpose of ascertaining the value of, and acquiring title to, the same; but the judge of the court hearing said suit shall determine the kind of notice to be served on such owner or owners, and he may in his discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or nonappearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claims to damages against said company shall be barred.

What proceedings in cases of lands held by any infant or person subject to any legal disability.

Other proceedings.

Proceedings when lands are unoccupied.

Claims barred if not made within six years.

Grants made subject to certain conditions.

Whole road to be completed by July 4, 1876.

Joint res. May 7, 1867, time extended two years; joint res. July 1, 1868, sec. 8; amended.

Congress may do anything necessary to insure a speedy completion of the road.

All people of the United States may subscribe to the stock, until whole amount is taken up.

No bonds to be issued without consent of Congress.

To be a post route and military road.

Congress may restrict charges for Government transportation.

Company to accept terms, conditions, &c., within two years.

SEC. 8. And be it further enacted, That each and every grant, right, and privilege herein are so made and given to and accepted by said Northern Pacific Railroad Company upon and subject to the following conditions, namely: That the said company shall commence the work on said road within two years from the approval of this act by the President, and shall complete not less than fifty miles per year after the second year, and shall construct, equip, furnish, and complete the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-six.

SEC. 9. And be it further enacted, That the United States make the several conditioned grants herein, and that the said Northern Pacific Railroad Company accept the same, upon the further condition that if the said company make any breach of the conditions thereof, and allow the same to continue for upwards of one year, then, in such case, at any time hereafter, the United States, by its Congress, may do any and all acts and things which may be needful and necessary to insure a speedy completion of said road.

SEC. 10. And be it further enacted, That all people of the United States shall have the right to subscribe to the stock of the Northern Pacific Railroad Company until the whole capital named in this act of incorporation is taken up, by complying with the terms of subscription; and no mortgage or construction bonds shall ever be issued by said company on said road, or mortgage, or lien made in any way, except by the consent of the Congress of the United States.

SEC. 11. And be it further enacted, That said Northern Pacific Railroad, or any part thereof, shall be a post route and a military road, subject to the use of the United States, for postal, military, naval, and all other Government service, and also subject to such regulations as Congress may impose restricting the charges for such Government transportation.

SEC. 12. And be it further enacted, That the acceptance of the terms, conditions, and impositions of this act by the said Northern Pacific Railroad Company shall be signified in writing under the corporate seal of said company, duly executed pursuant to the directions of its board of directors first had and obtained, which acceptance shall be made within two years after the passage of this act, and not afterwards, and shall be served on the President of the United States.

SEC. 13. *And be it further enacted,* That the directors of said company shall make an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors, and they shall, from time to time, fix, determine, and regulate the fares, tolls, and charges to be received and paid for transportation of persons and property on said road, or any part thereof.

Annual report to be verified by affidavits of president and six directors of company.

SEC. 14. *And be it further enacted,* That the directors chosen in pursuance of the first section of this act shall, as soon as may be after their election, elect from their own number a president and vice-president; and said board of directors shall, from time to time, and as soon as may be after their election, choose a treasurer and secretary, who shall hold their offices at the will and pleasure of the board of directors. The treasurer and secretary shall give such bonds, with such security as the said board from time to time may require. The secretary shall, before entering upon his duty, be sworn to the faithful discharge thereof, and said oath shall be made a matter of record upon the books of said corporation. No person shall be a director of said company unless he shall be a stockholder, and qualified to vote for directors at the election at which he shall be chosen.

Election of president and vice-president from board of directors.

Treasurer and secretary.

SEC. 15. *And be it further enacted,* That the president, vice-president, and directors shall hold their offices for the period indicated in the by-laws of said company, not exceeding three years, respectively, and until others are chosen in their place, and qualified. In case it shall so happen that an election of directors shall not be made on any day appointed by the by-laws of said company, the corporation shall not for that excuse be deemed to be dissolved, but such election may be holden on any day which shall be appointed by the directors. The directors, of whom seven, including the president, shall be a quorum for the transaction of business, shall have full power to make and prescribe such by-laws, rules, and regulations as they shall deem needful and proper touching the disposition and management of the stock, property, estate, and effects of the company, the transfer of shares, the duties and conduct of their officers and servants touching the election and meeting of the directors, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors may have full power to fill any vacancy or vacancies that may occur from any cause or causes from time to time in their said board. And the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of the company, and to do all acts and things touching the location and construction of said road.

Term of office of president, vice-president, and directors not to exceed three years.

Directors empowered to make by-laws, rules, and regulations.

Directors may fill vacancies in board.

Directors empowered to appoint engineers, agents, &c.

SEC. 16. *And be it further enacted,* That it shall be lawful for the directors of said company to require payment of the sum of ten per centum cash assessment upon all subscriptions received of all subscribers, and the balance thereof at such times and in such proportions and on such conditions as they shall deem to be necessary to complete the said road and telegraph line within the time in this act prescribed. Sixty days' previous notice shall be given of the payments required, and of the time and place of payment, by publishing a notice once a week in one daily newspaper in each of the cities of Boston, New York, Philadelphia, and Chicago; and in case any stockholder shall neglect or refuse to pay, in pursuance of such notice, the stock held by such person shall be forfeited absolutely to the use of the company, and also any payment or payments that shall have been made on account thereof, subject to the condition that the board of directors may allow the redemption on such terms as they may prescribe.

Directors to require payment of ten per centum cash assessment, and balance of subscription when needed.

Forfeited stock may be redeemed on terms prescribed by directors.

SEC. 17. *And be it further enacted,* That the said company is authorized to accept to its own use any grant, donation, loan, power, franchise, aid, or assistance which may be granted to or conferred upon said company by the Congress of the United States, by the legislature of any State, or by any corporation, person, or persons; and said corporation is authorized to hold and enjoy any such grant, donation, loan, power, franchise, aid, or assistance, to its own use for the purpose aforesaid.

Company authorized to accept other grants, franchises, &c.

SEC. 18. *And be it further enacted,* That said Northern Pacific Railroad Company shall obtain the consent of the legislature of any State through which any portion of said railroad line may pass previous to commencing the construction thereof; but said company may have the

Consent of State legislatures to be obtained.

right to put on engineers and survey the route before obtaining the consent of the legislature.

Act to be null and void, unless two millions of dollars of stock are subscribed for within two years.

Congress may add to, alter, amend, or repeal this act, having due regard for the rights of the company.

SEC. 19. *And be it further enacted*, That unless said Northern Pacific Railroad Company shall obtain *bona fide* subscriptions to the stock of said company to the amount of two millions of dollars, with ten per centum paid within two years after the passage and approval of this act, it shall be null and void.

SEC. 20. *And be it further enacted*, That the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the Government at all times (but particularly in time of war) the use and benefits of the same for postal, military, and other purposes, Congress may, at any time, having due regard for the rights of said Northern Pacific Railroad Company, add to, alter, amend, or repeal this act.

JOINT RESOLUTION OF MAY 7, 1866.

14 Stat., 356. No. 34.—A RESOLUTION extending the time for the completion of the Union Pacific Railroad, eastern division, and Northern Pacific Railroad.

* * * * *

Northern Pacific Railroad.

SEC. 2. *And be it further resolved*, That the time for commencing, and completing the Northern Pacific Railroad, and all its several sections, is extended for the term of two years.

(Repealed.)

ACT OF JUNE 25, 1868.

15 Stat., 79.

AN ACT relative to filing reports of railroad companies.

Reports to the Secretary of the Interior to be made on or before the first day of each year by subsidized Pacific railroad companies.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the reports required to be made to the Secretary of the Treasury on or before the first day of July of each year, by the corporations created by or entitled to subsidies under the provisions of an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, and the acts supplemental to and amendatory thereof, shall hereafter be made to the Secretary of the Interior, on or before the first day of October of each year. Said reports shall furnish full and specific information upon the several points mentioned in the twentieth section of the said act of eighteen hundred and sixty-two, and shall be verified as therein prescribed, and on failure to make the same as herein required, the issue of bonds or patents to the company in default shall be suspended until the requirements of this act shall be complied with by such company. And the reports hitherto made to the Secretary of the Treasury under the said act of July first, eighteen hundred and sixty-two, shall be transferred and delivered by him to the Secretary of the Interior to be filled by him.

Northern Pacific, Atlantic and Pacific, and Southern Pacific Railroad Companies to report at same time as the Union Pacific Railroad Company.

SEC. 2. *And be it further enacted*, That the corporations created by the provisions of the acts of Congress approved July second, eighteen hundred and sixty-four, and July twenty-seventh, eighteen hundred and sixty-six, and known as the Northern Pacific Railroad Company, the Atlantic and Pacific Railroad Company, and the Southern Pacific Railroad Company, shall make reports to the Secretary of the Interior on or before the first of October of each year, as are required to be made by the Union Pacific Railroad and branches, under the provisions of the first section of this act, and on failure to do so, shall be subject to the like suspension.

Reports of examining commissioners to be addressed to and filed in the Department of the Interior.

SEC. 3. *And be it further enacted*, That the reports required from the commissioners appointed to examine and report in relation to the road of any of the corporations whereto reference is made in this act, shall be addressed to and filed in the Department of the Interior; and all such reports heretofore made shall be transferred to and filed in said Department of the Interior; and so much of any and all acts as requires any reports from such companies, or any officers thereof, to be made to the Secretary of the Treasury, is hereby repealed.

SEC. 4. *And be it further enacted,* That in addition to the eight subjects referred to in section twenty of the act of July, eighteen hundred and sixty-two, to be reported upon, there shall also be furnished annually to the Secretary of the Interior all reports of engineers, superintendents, or other officers who make annual reports to any of said railroad companies.

Annual reports of officers to be furnished annually to the Secretary of the Interior.

(The foregoing act was repealed by act of Congress, approved June 19, 1878, 20 U. S. Stat., 169.)

JOINT RESOLUTION OF JULY 1, 1868.

No. 47.—JOINT RESOLUTION extending the time for the completion of the Northern Pacific Railroad. 15 Stat., p. 255.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That section eight of an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from Lake Superior to Puget Sound, on the Pacific coast," is hereby so amended as to read as follows: That each and every grant, right, and privilege herein, are so made and given to and accepted by said Northern Pacific Railroad Company upon and subject to the following conditions, namely: That the said company shall commence the work on said road within two years from and after the second day of July, eighteen hundred and sixty-eight, and shall complete not less than one hundred miles per year after the second year thereafter, and shall construct, equip, furnish, and complete the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-seven.

Section 8, chap. 217, 13 Stat., 370, amended.

Time extended to July 4, 1879. (See res. of May 7, 1866, 14 Stat., 355.)

JOINT RESOLUTION OF MARCH 1, 1869.

No. 15.—JOINT RESOLUTION granting the consent of Congress provided for in section ten of the act incorporating the Northern Pacific Railroad Company, approved July second, eighteen hundred and sixty-four. 15 Stat., 346. 13 Stat., 370.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the consent of the Congress of the United States is hereby given to the Northern Pacific Railroad Company to issue its bonds, and to secure the same by mortgage upon its railroad and its telegraph line, for the purpose of raising funds with which to construct said railroad and telegraph line between Lake Superior and Puget Sound, and also upon its branch to a point at or near Portland, Oregon; and the term "Puget Sound," as used here and in the act incorporating said company, is hereby construed to mean all the waters connected with the Straits of Juan de Fuca within the territory of the United States.

Consent of Congress given to issue mortgage bonds for construction purposes.

Meaning of term "Puget Sound."

JOINT RESOLUTION OF APRIL 10, 1869.

No. 20.—JOINT RESOLUTION granting right of way for the construction of a railroad from a point at or near Portland, Oregon, to a Point west of the Cascade Mountains, in Washington Territory. 16 Stat., 57.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Northern Pacific Railroad Company be, and hereby is, authorized to extend its branch line from a point at or near Portland, Oregon, to some suitable point on Puget Sound, to be determined by said company, and also to connect the same with its main line west of the Cascade Mountains, in the Territory of Washington; said extension being subject to all the conditions and provisions, and said company in respect thereto being entitled to all the rights and privileges conferred by the act incorporating said company, and all acts additional to and amendatory thereof: *Provided,* That said company shall not be entitled to any subsidy in money, lands, or additional lands of the United States, in respect to said extension of its branch line as aforesaid, except such lands as may be included in the right of way on the line of such extension as it may be

Company authorized to extend its branch line from Portland to Puget Sound.

Not entitled hereby to any subsidy or additional lands.

located: *And provided further*, That at least twenty-five miles of said extension shall be constructed before the second day of July, eighteen hundred and seventy-one, and forty miles per year thereafter until the whole of said extension shall be completed.

16 Stat., 878

RESOLUTION OF MAY 31, 1870.

No. 67.—A RESOLUTION authorizing the Northern Pacific Railroad Company to issue its bonds for the construction of its road and to secure the same by mortgage, and for other purposes.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Northern Pacific Railroad

Authorized to issue mortgage bonds for construction and equipment of road.

Mortgage to be filed and recorded in the office of the Secretary of the Interior.

Authorized to locate its main road via Columbia River, with a branch across the Cascade Mountains to Puget Sound.

Limits within which indemnity lands may be obtained increased ten miles, being sixty miles on each side of the road.

Company's lands unsold and not mortgaged subject to settlement at not over \$2.50 per acre five years after completion of the entire road.

American iron or steel, manufactured from American ores exclusively, shall only be used.

Congress reserves the right to alter or amend.

Company be, and hereby is, authorized to issue its bonds to aid in the construction and equipment of its road, and to secure the same by mortgage on its property and rights of property of all kinds and descriptions, real, personal, and mixed, including its franchises as a corporation; and, as proof and notice of its legal execution and effectual delivery, said mortgage shall be filed and recorded in the office of the Secretary of the Interior; and also to locate and construct, under the provisions and with the privileges, grants, and duties provided for in its act of incorporation, its main road to some point on Puget Sound, via the valley of the Columbia River, with the right to locate and construct its branch from some convenient point on its main trunk line across the Cascade Mountains to Puget Sound; and in the event of there not being in any State or Territory in which said main line or branch may be located, at the time of the final location thereof, the amount of lands per mile granted by Congress to said company, within the limits prescribed by its charter, then said company shall be entitled, under the directions of the Secretary of the Interior, to receive so many sections of land belonging to the United States, and designated by odd numbers, in such State or Territory, within ten miles on each side of said road, beyond the limits prescribed in said charter, as will make up such deficiency, on said main line or branch, except mineral and other lands as exempted in the charter of said company of eighteen hundred and sixty-four, to the amount of the lands that have been granted, sold, reserved, occupied by homestead settlers, preempted, or otherwise disposed of subsequent to the passage of the act of July two, eighteen hundred and sixty-four, and that twenty-five miles of said main line between its western terminus and the city of Portland, in the State of Oregon, shall be completed by the first day of January, anno Domini eighteen hundred and seventy-two, and forty miles of the remaining portion thereof each year thereafter until the whole shall be completed between said points: *Provided*, That all lands hereby granted to said company which shall not be sold or disposed of or remain subject to the mortgage by this act authorized, at the expiration of five years after the completion of the entire road, shall be subject to settlement and preemption like other lands, at a price to be paid to said company not exceeding two dollars and fifty cents per acre; and if the mortgage hereby authorized shall at any time be enforced by foreclosure or other legal proceeding, or the mortgaged lands hereby granted, or any of them, be sold by the trustees to whom such mortgage may be executed, either at its maturity or for any failure or default of said company under the terms thereof, such lands shall be sold at public sale, at places within the States and Territories in which they shall be situate, after not less than sixty days' previous notice, in single sections or subdivisions thereof, to the highest and best bidder: *Provided further*, That in the construction of the said railroad American iron or steel only shall be used, the same to be manufactured from American ores exclusively.

Authorized to locate its main road via Columbia River, with a branch across the Cascade Mountains to Puget Sound.

Limits within which indemnity lands may be obtained increased ten miles, being sixty miles on each side of the road.

Company's lands unsold and not mortgaged subject to settlement at not over \$2.50 per acre five years after completion of the entire road.

American iron or steel, manufactured from American ores exclusively, shall only be used.

Sec. 2. *And be it further resolved*, That Congress may at any time alter or amend this joint resolution, having due regard to the rights of said company and any other parties.

LAWS RELATING TO THE ATLANTIC AND PACIFIC RAILROAD.

ACT OF JULY 27, 1866.

AN ACT granting lands to aid in the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific coast. 14 Stat., 292.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That John B. Brown, Anson P. Morrill, Samuel F. Hersey, William G. Crosby, Samuel E. Spring, Samuel P. Dinsmore, of Maine; * * * and all such other persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic, in deed and in law, by the name, style, and title of the "Atlantic and Pacific Railroad Company," and by that name shall have perpetual succession, and shall be able to sue and be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal. And said corporation is hereby authorized and empowered to lay out, locate, and construct, furnish, maintain, and enjoy, a continuous railroad and telegraph line, with the appurtenances, namely: Beginning at or near the town of Springfield, in the State of Missouri, thence to the western boundary line of said State, and thence by the most eligible railroad route as shall be determined by said company to a point on the Canadian River, thence to the town of Albuquerque, on the River Del Norte, and thence by way of the Agua Frio, or other suitable pass, to the head waters of the Colorado Chiquito, and thence, along the thirty-fifth parallel of latitude as near as may be found most suitable for a railway route, to the Colorado River, at such point as may be selected by said company for crossing; thence, by the most practicable and eligible route, to the Pacific. The said company shall have the right to construct a branch from the point at which the road strikes the Canadian River eastwardly, along the most suitable route as selected, to a point in the western boundary line of Arkansas, at or near the town of Van Buren. And the said company is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act, as herein set forth. The capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all respects be deemed personal property, and shall be transferable in such manner as the laws of said corporation shall provide. The persons hereinbefore named are hereby appointed commissioners, and shall be called the board of commissioners of the "Atlantic and Pacific Railroad Company," and fifteen shall constitute a quorum for the transaction of business. The first meeting of said board of commissioners shall be held at the Turner Hall, in the city of Saint Louis, on the first day of October, anno Domini eighteen hundred and sixty-six, or at such time within three months thereafter as any ten commissioners herein named from Missouri shall appoint, notice of which shall be given by them to the other commissioners by publishing said notice in at least one daily newspaper in the cities of Boston, New York, Cincinnati, Saint Louis, Memphis, and Nashville, once a week for at least four weeks previous to the day of meeting. Said board shall organize by the choice from its number of a president, vice-president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof, as they may deem proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, signed by him, and the oath verified thereon. The president and secretary of said boards shall, in like manner, call other meetings, naming the time and place thereof. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times and in such principal cities or other places in the United States as they or a quorum of them shall determine, within twelve months after the passage of this act, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as ten thousand shares shall in good faith be subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of com-

Atlantic and Pacific Railroad Company incorporated.

Name.

Empowered to lay out, construct, and enjoy a continuous railroad and telegraph line.

From Springfield, Mo., via Albuquerque, N. Mex., along the 35th parallel of latitude, to the Pacific.

Right to construct a branch from Canadian River to a point near Van Buren, Ark.

Capital stock, \$100,000,000.

Board of commissioners appointed.

First meeting of commissioners to be held in St. Louis, Mo.

Organization of board.

President and secretary to call other meetings.

Duty of the board of commissioners to open books for subscriptions to stock.

First meeting of subscribers to stock.

Thirteen directors to be elected by stockholders.

Commissioners to deliver over to the directors all the moneys, properties, books, &c.

Annual meetings of stockholders.

Grant of right of way.

Authority to take from adjacent lands materials for construction.

Right of way 100 feet in width on each side of said railroad.

Right of way exempt from taxation.

Indian titles to be extinguished by the United States.

Grant of lands.

Forty sections per mile in the Territories.

Twenty sections per mile in the States.

Other lands may be selected in lieu of those reserved.

Land limits. If route is upon the line of any other aided road former grant shall be deducted.

Road having previous grant may assign.

missioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened, at least fifteen days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by lawful proxy, then and there shall elect, by ballot, thirteen directors for said corporation; and in such election each share of said capital stock shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners, and in case of their absence or inability any two of the officers of said board, shall act as inspectors of said election, and shall certify, under their hands, the names of the directors elected at said meeting. And the said commissioners, treasurer, and the secretary shall then deliver over to said directors all the moneys, properties, subscription books, and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. Annual meetings of the stockholders of the said corporation for the choice of officers (when they are to be chosen), and for the transaction of business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Sec. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to the said Atlantic and Pacific Railroad Company, its successors and assigns, for the construction of a railroad and telegraph as proposed; and the right, power, and authority is hereby given to said corporation to take from the public lands adjacent to the line of said road material of earth, stone, timber, and so forth, for the construction thereof. Said way is granted to said railroad to the extent of one hundred feet in width on each side of said railroad where it may pass through the public domain, including all necessary grounds for station-buildings, workshops, depots, machine-shops, switches, side-tracks, turn tables, and water-stations; and the right of way shall be exempt from taxation within the Territories of the United States. The United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the Indians, and only by their voluntary cession, the Indian title to all lands falling under the operation of this act and acquired in the donation of the road named in the act.

Sec. 3. *And be it further enacted*, That there be, and hereby is, granted to the Atlantic and Pacific Railroad Company, its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific Coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway and its branches, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and whenever, on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption or other claims or rights, at the time the line of said road is designated by a plat thereof, filed in the office of the commissioner of the General Land Office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections, and not including the reserved numbers: *Provided*, That if said route shall be found upon the line of any other railroad route, to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: *Provided further*, That the railroad company receiving the previous grant of land may assign their interest to said "Atlantic and Pacific Railroad Company," or may

consolidate, confederate, and associate with said company upon the terms named in the first and seventeenth sections of this act: *Provided further*, That all mineral lands be, and the same are hereby, excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands in odd-numbered sections nearest to the line of said road, and within twenty miles thereof, may be selected as above provided: *And provided further*, That the word "mineral," when it occurs in this act, shall not be held to include iron or coal: *And provided further*, That no money shall be drawn from the Treasury of the United States to aid in the construction of the said "Atlantic and Pacific Railroad."

"Mineral" lands not granted. Agricultural lands in lieu of mineral lands.

"Mineral" does not include iron or coal.

Sec. 4. *And be it further enacted*, That whenever said Atlantic and Pacific Railroad Company shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated, the President of the United States shall appoint three commissioners to examine the same, who shall be paid a reasonable compensation for their services by the company, to be determined by the Secretary of the Interior; and if it shall appear that twenty-five consecutive miles of said road and telegraph line have been completed in a good, substantial, and workman-like manner, as in all other respects required by this act, the commissioners shall so report under oath, to the President of the United States, and patents of lands, as aforesaid, shall be issued to said company, confirming to said company the right and title to said lands situated opposite to and coterminous with said completed section of said road. And from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed as aforesaid.

The President to appoint three Commissioners to examine road.

Commissioners to report, under oath, to the President.

Sec. 5. *And be it further enacted*, That said Atlantic and Pacific Railroad shall be constructed in a substantial and workmanlike manner, with all the necessary draws, culverts, bridges, viaducts, crossings, turn-outs, stations, and watering places, and all other appurtenances, including furniture and rolling stock, equal in all respects to railroads of the first-class when prepared for business, with rails of the best quality, manufactured from American iron. And a uniform gauge shall be established throughout the entire length of the road. And there shall be constructed a telegraph line, of the most substantial and approved description, to be operated along the entire line: *Provided*, That the said company shall not charge the Government higher rates than they do individuals for like transportation and telegraphic service. And it shall be the duty of the Atlantic and Pacific Railroad Company to permit any other railroad which shall be authorized to be built by the United States, or by the legislature of any Territory or State in which the same may be situated, to form running connections with it, on fair and equitable terms.

Road to be constructed as a "first-class" railroad.

Rails to be of American iron. Gauge to be uniform.

Telegraph line. Condition as to charges for Government transport and telegraphic service.

Other roads may form running connections on equitable terms.

Sec. 6. *And be it further enacted*, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road after the general route shall be fixed, and as fast as may be required by the construction of said railroad; and the odd sections of land hereby granted shall not be liable to sale or entry, or pre-emption, before or after they are surveyed, except by said company, as provided in this act; but the provision of the act of September, eighteen hundred and forty-one, granting pre-emption rights, and the act amendatory thereof, and of the act entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, shall be, and the same are hereby, extended to all other lands on the line of said road when surveyed, excepting those hereby granted to said company.

Lands to be surveyed as fast as construction of road may require.

Sec. 7. *And be it further enacted*, That the said Atlantic and Pacific Railroad Company be, and is hereby, authorized and empowered to enter upon, purchase, take and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of the line of its railroad, unless a greater width be required for the purposes of excavation or embankment; and also any lands or premises that may be

Authorizes company to take any lands necessary for construction of its road.

100 feet on each side.

Lands for turn-outs, depots, &c.

Damages to be determined by commissioners.

Procedure.

What proceedings in cases of lands held by any person subject to any legal disability.

Other proceedings.

Proceedings when lands are unoccupied.

Claims barred if not made within six years.

Grants made subject to certain conditions.

Whole road to be completed by July 4, 1878.

necessary and proper for turn-outs, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road. And the said company shall have the right to cut and remove trees and other material that might, by falling, incumber its road-bed, though standing or being more than two hundred feet from the line of said road. And in case the owner of such lands or premises and the said company can not agree as to the value of the premises taken, or to be taken, for the use of said road, the value thereof shall be determined by the appraisal of three disinterested commissioners, who may be appointed upon application by either party to any court of record in any of the Territories in which the lands or premises to be taken lie; and said commissioners, in their assessment of damages, shall appraise such premises at what would have been the value thereof if the road had not been built. And upon return into court of such appraisement, and upon the payment into the same of the estimated value of the premises taken for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes aforesaid. And either party feeling aggrieved at said appraisement may, within thirty days after the same has been returned into court, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary and proper in the construction of its road. And said party appealing shall give bonds, with sufficient surety or surties, for the payment of any cost that may arise upon such appeal; and in case the party appealing does not obtain a verdict more favorable, such party shall pay the whole cost incurred by the appellee, as well as his own, and the payment into court, for the use of the owner of said premises taken, at a sum equal to that finally awarded, shall be held to vest in said company the title of said land, and the right to use and occupy the same for the construction, maintenance and operation of said road. And in case any of the lands to be taken as aforesaid shall be held by an infant, femme covert, non compos, insane person, or persons residing without the territory within which the lands to be taken lie, or persons subjected to any legal disability, the court may appoint a guardian, for any party under disqualification, to appear in proper person, who shall give bonds, with sufficient surety or sureties, for the proper and faithful execution of his trust, and who may represent in court the person disqualified, as aforesaid, from appearing when the same proceedings shall be had in reference to the appraisement of the premises to be taken for the use of said company, and with the same effect as has been already described; and the title of the company to the lands taken by virtue of this act shall not be affected or impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case any party shall have a right or claim to any land for a term of years, or any interest therein, in possession, reversion, or remainder, the value of any such estate, less than a fee-simple, shall be estimated and determined in the manner hereinbefore set forth. And in case it shall be necessary for the company to enter upon any lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purposes of said railroad, and may institute proceedings, in manner described, for the purpose of ascertaining the value of and of acquiring a title to the same; but the judge of the court hearing said suit shall determine the kinds of notice to be served on such owner or owners, and he may in his discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or non-appearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claim to damages against said company shall be barred.

Sec. 8. *And be it further enacted*, That each and every grant, right, and privilege herein are so made and given to and accepted by said Atlantic and Pacific Railroad Company, upon and subject to the following conditions, namely: That the said company shall commence the work on said road within two years from the approval of this act by the President, and shall complete not less than fifty miles per year after the second year, and shall construct, equip, furnish, and complete the

main line of the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-eight.

Sec. 9. *And be it further enacted*, That the United States make the several conditional grants herein, and that the said Atlantic and Pacific Railroad Company accept the same, upon the further condition that if the said company make any breach of the conditions hereof, and allow the same to continue for upwards of one year, then, in such case, at any time hereafter, the United States may do any and all acts and things which may be needful and necessary to insure a speedy completion of the said road.

Sec. 10. *And be it further enacted*, That all people of the United States shall have the right to subscribe to the stock of the Atlantic and Pacific Railroad Company until the whole capital named in this act of incorporation is taken up by complying with the terms of subscription.

Sec. 11. *And be it further enacted*, That said Atlantic and Pacific Railroad, or any part thereof, shall be a post route and military road, subject to the use of the United States for postal, military, naval, and all other Government service, and also subject to such regulations as Congress may impose restricting the charges for such Government transportation.

Sec. 12. *And be it further enacted*, That the acceptance of the terms, conditions, and impositions of this act by the said Atlantic and Pacific Railroad Company shall be signified in writing under the corporate seal of said company, duly executed pursuant to the direction of its board of directors first had and obtained, which acceptance shall be made within two years after the passage of this act, and not afterwards, and shall be deposited in the office of the Secretary of the Interior.

Sec. 13. *And be it further enacted*, That the directors of said company shall make and publish an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors, a copy of which shall be deposited in the office of said Secretary of the Interior, and they shall, from time to time, fix, determine, and regulate the fares, tolls, and charges to be received and paid for transportation of persons and property on said road, or any part thereof.

Sec. 14. *And be it further enacted*, That the directors chosen in pursuance of the first section of this act shall so soon as may be after their election, elect from their own number a president and vice-president; and said board of directors shall, from time to time, and so soon as may be after their election, choose a treasurer and secretary, who shall hold their offices at the will and pleasure of the board of directors. The treasurer and secretary shall give such bonds, with such security as the said board from time to time may require. The secretary shall, before entering upon his duty, be sworn to the faithful discharge thereof, and said oath shall be made a matter of record upon the books of said corporation. No person shall be a director of said company unless he shall be a stockholder, and qualified to vote for directors at the election at which he shall be chosen.

Sec. 15. *And be it further enacted*, That the president, vice-president, and directors shall hold their offices to the period indicated in the by-laws of said company, not exceeding three years, respectively, and until others are chosen in their place, and qualified. In case it shall so happen that an election of directors shall not be made on any day appointed by the by-laws of said company, the corporation shall nor for that excuse be deemed to be dissolved, but such election may be holden on any day which shall be appointed by the directors. The directors, of whom seven, including the president, shall be a quorum for the transaction of business, shall have full power to make and prescribe such by-laws, rules, and regulations as they shall deem needful and proper touching the disposition and management of stock, property, estate, and effects of the company, the transfer of shares, the duties and conduct of their officers and servants touching the election and meeting of the directors, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors may have full power to fill any vacancy or vacancies that may occur from any cause or causes from time to time in their said board. And the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of the company, and to do all acts and things touching the location and construction of said road.

Congress may do anything necessary to insure a speedy completion of the road.

All people of the United States may subscribe to the stock until whole amount is taken up.

To be a post route and military road.

Congress may restrict charges for Government transportation.

Company to accept terms, conditions, &c., within two years.

Annual report to be verified by affidavits of president and six directors of company.

Election of president and vice-president from board of directors.

Treasurer and secretary.

Term of office of president, vice-president, and directors not to exceed three years.

Directors empowered to make by-laws, rules, and regulations.

Directors may fill vacancies in board.

Directors empowered to appoint engineers, agents, &c.

Directors to require payment of ten per centum, cash assessment, and balance of subscriptions when needed.

Forfeited stock may be redeemed on terms prescribed by directors.

Company authorized to accept other grants, franchises, &c.

Grant from any Indian tribe to be subject to the approval of the President.

Southern Pacific may connect with the Atlantic and Pacific Road.

Point of connection to be near the boundary line of California.

Uniform gauge and rate of freight and fare. Shall have similar grants of land, &c.

This act to be null and void, unless one million of dollars of stock are subscribed for within two years.

Congress may add to, alter, amend, or repeal this act, having due regard for the rights of the company.

Compensation of directors, engineers, commissioners, &c., to be paid by railroad companies.

Ten dollars per day and ten cents per mile.

If company neglects to make such payments, patents for lands not to be issued.

SEC. 16. *And be it further enacted*, That it shall be lawful for the directors of said company to require payment of the sum of ten per centum cash assessment upon all subscriptions received of all subscribers, and the balance thereof at such times and in such proportion and on such conditions as they shall deem to be necessary to complete the said road and telegraph lines within the time in this act prescribed. Sixty days' previous notice shall be given of the payments required and of the time and place of payment, by publishing a notice once a week in one daily newspaper in each of the cities of Boston, New York, Cincinnati, St. Louis, Memphis, and Nashville, and in case any stockholder shall neglect or refuse to pay, in pursuance of such notice, the stock held by such person shall be forfeited absolutely to the use of the company, and also any payment or payments that shall have been made on account thereof, subject to the condition that the board of directors may allow the redemption on such terms as they may prescribe.

SEC. 17. *And be it further enacted*, That the said company is authorized to accept to its own use any grant, donation, loan, power, franchise, aid, or assistance which may be granted to or conferred on said company by the Congress of the United States, by the legislature of any State, or by any corporation, person, or persons, or by any Indian tribe or nation through whose reservation the road herein provided for may pass; and said corporation is authorized to hold and enjoy any such grant, donation, loan, power, franchise, aid, or assistance to its own use, for the purpose aforesaid: *Provided*, That any such grant or donation, power, aid, or assistance from any Indian tribe or nation shall be subject to the approval of the President of the United States.

SEC. 18. *And be it further enacted*, That the Southern Pacific Railroad, a company incorporated under the laws of the State of California, is hereby authorized to connect with the said Atlantic and Pacific Railroad, formed under this act, at such point near the boundary line of the State of California as they shall deem most suitable for a railroad line to San Francisco, and shall have a uniform gauge and rate of freight or fare with said road; and in consideration thereof, to aid in its construction, shall have similar grants of land, subject to all the conditions and limitations herein provided, and shall be required to construct its road on the like regulations, as to time and manner, with the Atlantic and Pacific Railroad herein provided for.

SEC. 19. *And be it further enacted*, That unless the said Atlantic and Pacific Railroad Company shall obtain bona fide subscriptions to the stock of said company to the amount of one million of dollars, with ten per centum paid, within two years after the passage of and approval of this act, it shall be null and void.

SEC. 20. *And be it further enacted*, That the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the Government at all times, but particularly in time of war, the use and benefit of the same for postal, military, and other purposes, Congress may, at any time, having due regard for the rights of said Atlantic and Pacific Railroad Company, add to, alter, amend, or repeal this act.

SEC. 21.¹ *And be it further enacted*, That whenever in any grant of land or other subsidies, made or hereafter to be made, to railroads or other corporations, the United States has reserved the right, or shall reserve the right, to appoint directors, engineers, commissioners, or other agents to examine said roads, or act in conjunction with other officers of said company or companies, all the costs, charges, and pay of said directors, engineers, commissioners, or agents, shall be paid by the respective companies. Said directors, engineers, commissioners, or agents shall be paid for said services the sum of ten dollars per day, for each and every day actually and necessarily employed, and ten cents per mile for each and every mile actually and necessarily traveled, in discharging the duties required of them, which per diem and mileage shall be in full compensation for said services. And in case any company shall refuse or neglect to make such payments, no more patents for land or other subsidies shall be issued to said company until these requirements are complied with.

¹ This section has been incorporated in the Revised Statutes as section 5259.

ACT OF APRIL 20, 1871.

AN ACT to enable the Atlantic and Pacific Railroad Company to mortgage its road. 17 Stat., 19.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Atlantic and Pacific Railroad Company, organized under act of Congress of July twenty-seven, eighteen hundred and sixty-six, is hereby authorized to make and issue its bonds in such form and manner, and for such sums, payable at such times, and bearing such rate of interest, and to dispose of them on such terms as its directors may deem advisable; and to secure said bonds the said company may mortgage its road, equipment, lands, franchises, privileges, and other rights and property, subject to such terms, conditions, and limitations as its directors may prescribe. As proof and notice of the legal execution and effectual delivery of any mortgage hereafter made by said company, it shall be filed and recorded in the office of the Secretary of the Interior: *Provided,* That if the company shall hereafter suffer any breach of the conditions of the act above referred to, under which it is organized, the rights of those claiming under any mortgage made by the company to the lands granted to it by said act shall extend only to so much thereof as shall be coterminous with or appertaining to that part of said road which shall have been constructed at the time of the foreclosure of said mortgage.

The Atlantic and Pacific Railroad Company authorized to issue its bonds.

Road, equipment, lands, franchises, &c., may be mortgaged to secure the bonds.

Mortgage to be filed and recorded in the office of the Secretary of the Interior.

Breach of conditions of organic act will affect those claiming under any foreclosure of the mortgage.

ACT OF JULY 6, 1866.

AN ACT to forfeit the lands granted to the Atlantic and Pacific Railroad Company to aid in the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific coast, and to restore the same to settlement and for other purposes. 24 Stat., 123.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all the lands, excepting the right of way and the right, power, and authority given to said corporation to take from the public lands adjacent to the line of said road material of earth, stone, timber, and so forth, for the construction thereof, including all necessary grounds for station buildings, workshops, depots, machine shops, switches, side-tracks, turn-tables, and water-stations, heretofore granted to the Atlantic and Pacific Railroad Company by an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific coast," approved July twenty-seventh, eighteen hundred and sixty-six, and subsequent acts and joint resolutions of Congress, which are adjacent to and coterminous with the uncompleted portions of the main line of said road, embraced within both the granted and indemnity limits, as contemplated to be constructed under and by the provisions of the said act of July twenty-seventh, eighteen hundred and sixty-six, and acts and joint resolutions subsequent thereto and relating to the construction of said road and telegraph, be and the same are hereby, declared forfeited and restored to the public domain.

Atlantic and Pacific Railroad Company.

Forfeiture of grant of lands adjacent to uncompleted portion of road, except right of way, &c.

Vol. 14, p. 292.

LAWS RELATING TO THE CALIFORNIA AND OREGON, AND THE OREGON AND CALIFORNIA RAILROADS.

ACT OF JULY 25, 1866.

AN ACT granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad, in California, to Portland, in Oregon. 14 Stat., 289.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the "California and Oregon Railroad Company," organized under an act of the State of California, to protect certain parties in and to a railroad survey "to connect Portland, in Oregon, with Marysville, in California," approved April sixth, eighteen hundred and sixty-three, and such company organized under the laws of Oregon as the legislature of said State shall

The California and Oregon R. R. Co. of California and an Oregon company empowered to locate and construct a railroad

and telegraph line between hereafter designate, be, and they are hereby, authorized and empow-
 erred to lay out, locate, construct, finish, and maintain a railroad and
 Portland, Oreg., telegraph line between the city of Portland, in Oregon, and the Central
 Pacific Railroad in California, in the manner following, to wit:
 The said California and Oregon Railroad Company, to construct that

The California company to construct road to northern boundary of State.

The Oregon company to construct the road to the southern boundary of Oregon.

Portland, in Oregon, and running thence southerly through the Wil-
 lamette, Umpqua, and Rogue River valleys to the southern boundary
 of Oregon, where the same shall connect with the part aforesaid to be

The company first completing its part may continue its road with consent of State.

made by the first-named company: *Provided*, That the company com-
 pleting its respective part of the said railroad and telegraph from either
 of the termini herein named to the line between California and Oregon
 before the other company shall have likewise arrived at the same line,
 shall have the right, and the said company is hereby authorized, to
 continue in constructing the same beyond the line aforesaid, with the
 consent of the State in which the unfinished part may lie, upon the
 terms mentioned in this act, until the said parts shall meet and connect,
 and the whole line of said railroad and telegraph shall be completed.

Grant of land.

Sec. 2. And be it further enacted, That there be, and hereby is, granted
 to the said companies, their successors and assigns, for the purpose of
 aiding in the construction of said railroad and telegraph line, and to
 secure the safe and speedy transportation of the mails, troops, munitions
 of war, and public stores over the line of said railroad, every
 alternate section of public land, not mineral, designated by odd num-
 bers to the amount of twenty alternate sections per mile (ten on each
 side) of said railroad line; and when any of said alternate sections or
 parts of sections shall be found to have been granted, sold, reserved,
 occupied by homestead settlers, pre-empted, or otherwise disposed of,
 other lands, designated as aforesaid, shall be selected by said companies
 in lieu thereof, under the direction of the Secretary of the Interior, in
 alternate sections designated by odd numbers as aforesaid, nearest to

and not more than ten miles beyond the limits of said first-named
 alternate sections; and as soon as the said companies, or either of them,
 shall file in the office of the Secretary of the Interior a map of the sur-
 vey of said railroad, or any portion thereof, not less than sixty con-
 tinuous miles from either terminus, the Secretary of the Interior shall
 withdraw from sale public lands herein granted on each side of said
 railroad, so far as located and within the limits before specified. The
 lands herein granted shall be applied to the building of said road
 within the States, respectively, wherein they are situated. And the
 sections and parts of sections of land which shall remain in the United
 States within the limits of the aforesaid grant shall not be sold for less
 than double the minimum price of public lands when sold: *Provided*,

That bona fide and actual settlers under the pre-emption laws of the
 United States may, after due proof of settlement, improvement, and
 occupation, as now provided by law, purchase the same at the price
 fixed for said lands at the date of such settlement, improvement, and
 occupation: *And provided also*, That, settlers under the provisions of
 the homestead act, who comply with the terms and requirements of said
 act, shall be entitled, within the limits of said grant, to patents for an
 amount not exceeding eighty acres of the land so reserved by the
 United States, anything in this act to the contrary notwithstanding.

Sec. 3. And be it further enacted, That the right of way through the
 public lands be, and the same is hereby, granted to said companies for
 the construction of said railroad and telegraph line; and the right,
 power, and authority are hereby given to said companies to take from
 the public lands adjacent to the line of said road, earth, stone, timber,
 water, and other materials for the construction thereof. Said right of
 way is granted to said railroad to the extent of one hundred feet in
 width on each side of said railroad where it may pass over the public
 lands, including all necessary grounds for stations, buildings, work-

When maps of surveys are filed lands to be withdrawn from sale.

Lands granted to be applied to building road in the States where they lie.

Remaining lands to be sold, for what price.

Settlers under pre-emption laws may purchase, at what price, &c.

Under homestead act may have not over 80 acres.

Grant of right of way.

Materials for construction from adjacent lands.

Rights of way 100 feet on each side of said railroad.

shops, depots, machine shops, switches, side tracks, turntables, water stations, or any other structures required in the construction and operating of said road. **Lands for stations, &c.**

SEC. 4. *And be it further enacted*, That whenever the said companies, or either of them, shall have twenty or more consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated by this act, the President of the United States shall appoint three commissioners, whose compensation shall be paid by said company, to examine the same, and if it shall appear that twenty consecutive miles of railroad and telegraph shall have been completed and equipped in all respects as required by this act, the said commissioners shall so report under oath to the President of the United States, and thereupon patents shall issue to said companies, or either of them, as the case may be, for the lands hereinafter granted, to the extent of and coterminous with the completed section of said railroad and telegraph line as aforesaid; and from time to time, whenever twenty or more consecutive miles of the said road and telegraph shall be completed and equipped as aforesaid, patents shall in like manner issue upon the report of the said commissioners, and so on until the entire railroad and telegraph authorized by this act shall have been constructed, and the patents of the lands herein granted shall have been issued. **The President to appoint 3 commissioners to examine road.**

SEC. 5. *And be it further enacted*, That the grants aforesaid are made upon the condition that the said companies shall keep said railroad and telegraph in repair and use, and shall at all times transport the mails upon said railroad, and transmit dispatches by said telegraph line for the Government of the United States, when required so to do by any Department thereof, and that the Government shall at all times have the preference in the use of said railroad and telegraph therefor at fair and reasonable rates of compensation, not to exceed the rates paid by private parties for the same kind of service. And said railroad shall be and remain a public highway for the use of the Government of the United States, free of all toll or other charges upon the transportation of the property or troops of the United States; and the same shall be transported over said road at the cost, charge, and expense of the corporations or companies owning or operating the same, when so required by the Government of the United States. **Commissioners to report under oath to the President.** **Patents to be issued for lands coterminous with completed railroad.** **Condition of grant.** **Fair and reasonable rates of compensation.** **Railroad to be a public highway and free to the United States.** **Property and troops of the United States to be transported at the cost of the companies when so required by the Government.**

SEC. 6. *And be it further enacted*, That the said companies shall file their assent to this act in the Department of the Interior within one year after the passage hereof and shall complete the first section of twenty miles of said railroad and telegraph within two years, and at least twenty miles in each year thereafter, and the whole on or before the first day of July, one thousand eight hundred and seventy-five; and the said railroad shall be of the same gauge as the "Central Pacific Railroad" of California, and be connected therewith. **Companies to file assent to this act within 1 year.** **Road to be completed by July 1, 1875.** **Gauge to be same as Central Pacific.**

SEC. 7. *And be it further enacted*, That the said companies named in this act are hereby required to operate and use the portions or parts of said railroad and telegraph mentioned in section one of this act for all purposes of transportation, travel, and communication, so far as the Government and public are concerned, as one connected and continuous line; and in such operation and use to afford and secure to each other equal advantages and facilities as to rates, time, and transportation, without any discrimination whatever, on pain of forfeiting the full amount of damages sustained on account of such discrimination, to be sued for and recovered in any court of the United States, or of any State of competent jurisdiction. **Companies to use and operate road as one continuous line.** **No discrimination whatever.**

SEC. 8. *And be it further enacted*, That in case the said companies shall fail to comply with the terms and conditions required, namely, by not filing their assent thereto, as provided in section six of this act, or by not completing the same as provided in said section, this act shall be null and void, and all the lands not conveyed by patent to said company or companies, as the case may be, at the date of any such failure, shall revert to the United States. And in case the said railroad and telegraph line shall not be kept in repair and fit for use, after the same shall have been completed, Congress may pass an act to put the same in repair and use, and may direct the income of said railroad and telegraph line to be thereafter devoted to the United States, to **If companies fail to comply with certain conditions, this act to be void, and the lands not conveyed to the United States.** **If road and telegraph line are not kept in repair Congress may, &c.**

repay all expenditures caused by the default and neglect of said companies or either of them, as the case may be, or may fix pecuniary responsibility, not exceeding the value of the lands granted by this act.

The companies to be governed by the laws of their respective States.

Sec. 9. *And be it further enacted*, That the said "California and Oregon Railroad Company" and the said "Oregon Company" shall be governed by the provisions of the general railroad and telegraph laws of their respective States, as to the construction and management of the said railroad and telegraph line hereinbefore authorized, in all matters not provided for in this act. Wherever the word "company" or "companies" is used in this act it shall be construed to embrace the words "their associates, successors, and assigns," the same as if the words had been inserted, or thereto annexed.

The word "company" to include "associates, successors, and assigns."

Mineral lands excepted from this grant.

Sec. 10. *And be it further enacted*, That all mineral lands shall be excepted from the operations of this act; but where the same shall contain timber, so much of the timber thereon as shall be required to construct said road over such mineral land is hereby granted to said companies: *Provided*, That the term "mineral lands" shall not include lands containing coal and iron.

"Mineral" not coal and iron.

Companies to obtain the consent of States, where road and telegraph line do not pass through public lands.

Sec. 11. *And be it further enacted*, That the said companies named in this act shall obtain the consent of the legislatures of their respective States, and be governed by the statutory regulations thereof in all matters pertaining to the right of way, wherever the said road and telegraph line shall not pass over or through the public lands of the United States.

Act may be amended, &c.

Sec. 12. *And be it further enacted*, That Congress may at any time, having due regard for the rights of said California and Oregon railroad companies, add to, alter, amend, or repeal this act.

ACT OF APRIL 10, 1869.

16 Stat., 47. 1866, ch. 242, vol. xiv, p. 239.

AN ACT to amend an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad, in California, to Portland, in Oregon," approved July twenty-five, eighteen hundred and sixty-six.

Assent of railroad company to act may be filed within one year from date of this act.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section six of an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad, in California, to Portland, in Oregon," approved July twenty-five, eighteen hundred and sixty-six, be, and the same is hereby, amended, so as to allow any railroad company heretofore designated by the legislature of the State of Oregon, in accordance with the first section of said act, to file its assent to such act in the Department of the Interior within one year from the date of the passage of this act; and such filing of its assent, if done within one year from the passage hereof, shall have the same force and effect to all intents and purposes as if such assent had been filed within one year after the passage of said act: *Provided*, That nothing herein

Acquired rights not affected.

Not more than one company entitled to a grant of land.

Lands, how and to whom to be sold.

shall impair any rights heretofore acquired by any railroad company under said act, nor shall said act or this amendment be construed to entitle more than one company to a grant of land: *And provided further*, That the lands granted by the act aforesaid shall be sold to actual settlers only, in quantities not greater than one-quarter section to one purchaser, and for a price not exceeding two dollars and fifty cents per acre.

LAW RELATING TO THE OREGON SHORT-LINE RAILWAY.

ACT OF AUGUST 2, 1882.

22 Stat., 185.

AN ACT creating the Oregon Short-Line Railway Company, a corporation in the Territories of Utah, Idaho, and Wyoming, and for other purposes.

Oregon Short-Line Railway Company created a railway corporation in Territories of Utah, Idaho, and Wyoming, with rights, &c.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Oregon Short-Line Railway Company, a corporation of that name duly incorporated and organized under the laws of the Territory of Wyoming, the amended articles of incorporation of which were duly filed in the office of the secretary of the said Territory on the twelfth day of July, anno Domini eighteen hundred and eighty-one, be, and the same is hereby, made a

railway corporation in the Territories of Utah, Idaho, and Wyoming, under the same conditions and limitations and with the same rights and privileges that it now has and enjoys under said articles of incorporation within the said Territory of Wyoming, and with all the rights and privileges within said Territories of Wyoming, Utah, and Idaho, which are secured to railway companies by the act of Congress approved the third day of March, anno Domini eighteen hundred and seventy-five, entitled "An act granting to railroads the right of way through the public lands of the United States:" *Provided*, That the said corporation shall at all times hereafter be subject to all the laws and regulations of the United States in relation to railroads, or of any Territory or State through which its line of road may pass. And suits against said corporation may be instituted in the courts of said Territories, or either of them having jurisdiction by the laws of such Territory.

18 Stat., 482.
Proviso.

Right to alter
amend, &c.

Sec. 2. That Congress may at any time add to, alter, or repeal this act.

LAW RELATING TO ST. LOUIS, IRON MOUNTAIN AND SOUTHERN RAILROAD.

ACT OF JUNE 28, 1884.

AN ACT to repeal section one of the act entitled "An act making a grant of lands in alternate sections to aid in the construction and extension of the Iron Mountain Railroad from Pilot Knob, in the State of Missouri, to Helena, in Arkansas," approved July fourth, eighteen hundred and sixty-six, and for other purposes.

23 Stat., 61.

Whereas by the first section of an act of Congress approved July the fourth, eighteen hundred and sixty-six, there was granted to the State of Missouri, for the purpose of aiding in the construction and extension of the Iron Mountain Railroad, from its terminus at Pilot Knob to a point on the southern boundary line of the State, every alternate section of land designated by odd numbers, for ten sections in width on each side of said road; and

14 Stat., 88.
Preamble.

Whereas said Iron Mountain Railroad Company, or its successor, did not comply with the terms of said act either in time or by the construction of its line in accordance with the location of its line as shown on its maps filed in the Department of the Interior or otherwise, and never became entitled to or received any of said lands: Therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section one of the act of Congress entitled "An act making a grant of lands in alternate sections to aid in the construction and extension of the Iron Mountain Railroad, from Pilot Knob, in the State of Missouri, to Helena, in Arkansas," approved July fourth, eighteen hundred and sixty-six, be and hereby is repealed; and upon the acceptance by the said Iron Mountain Railroad Company, its successors or assigns, in writing, under corporate seal, within six months from the passage of this act, and upon the production to the Secretary of the Interior by said company, its successors or assigns, of satisfactory proof that said lands have not been sold or encumbered by said company, the said Iron Mountain Railroad Company, its successors or assigns, shall be forever released from any and all obligations imposed by said act of July fourth, eighteen hundred and sixty-six; and all of the lands granted by said section one be and they are hereby restored to the public domain for disposition under the public land laws of the United States: *Provided*, That all pre-emption and homestead entries heretofore allowed upon any of said lands, not in excess of the legal quantity, be, and they are hereby, confirmed: *And provided further*, That all persons residing on any of said lands at the date of the passage of this act shall have a prior right to acquire the same, not exceeding one hundred and sixty acres, by the usual methods and under the usual restrictions: *Provided*, That there shall be excluded from the operation of the release of the obligations as a land grant road herein provided, that part of the railroad between Poplar Bluff, Missouri, and the Arkansas State line.

Repeal of section one of act granting lands to aid in construction of Iron Mountain Railroad.

Release of company; conditions.

Lands restored to the public domain; proviso.

LAWS RELATING TO THE TEXAS AND PACIFIC RAILWAY.

ACT OF MARCH 3, 1871.

16 Stat., 573. AN ACT to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its road, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That John C. Fremont, James L. Alcorn, G. M. Dodge, O. C. French, John D. Caldwell, * * * and all such persons as shall or may be associated with them, and their successors, are hereby created a body politic and corporate in fact and in law, by the name, style, and title of the Texas Pacific Railroad Company, and by that name shall have perpetual succession, and shall be able to sue and besued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and use a common seal; and the said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances, from a point at or near Marshall, county of Harrison, State of Texas; thence by the most direct and eligible route, to be determined by said company, near the thirty-second parallel of north latitude, to a point at or near El Paso; thence by the most direct and eligible route, to be selected by said company, through New Mexico and Arizona, to a point on the Rio Colorado, at or near the southeastern boundary of the State of California; thence by the most direct and eligible route to San Diego, California, to ship's channel, in the Bay of San Diego, in the State of California, pursuing in the location thereof, as near as may be, the thirty-second parallel of north latitude, and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act.

Name.

Empowered to lay out, construct, and enjoy a continuous railroad and telegraph line from Marshall, Tex., by a route near the 32d parallel of north latitude, via El Paso, through New Mexico and Arizona to San Diego, Cal.

Board of commissioners constituted.

To meet in the city of New York.

Subscription books for capital stock to be opened.

Stockholders to organize company, when, &c.

Not less than seven nor more than seventeen directors.

Term of office one year.

Directors to elect officers.

Term of office of directors three years.

Annual meeting of stockholders.

Capital stock, \$50,000,000.

Stock not to be increased without consent of Congress.

Sec. 2. That the persons named in the first section of this act shall constitute a board of commissioners (twenty of whom shall constitute a quorum for the transaction of business), to be known as the Texas Pacific Railroad commissioners, who shall meet in the city of New York within ninety days after the passage of this act, at a time to be designated in a notice to be signed by the person first named in the list of incorporators and six of his associates, and to be published for two weeks in, at least, one daily newspaper in New York, New Orleans, and Washington; and, when so met, they may cause books to be opened for the subscription of the capital stock of said company, and when twenty thousand shares, amounting to two millions of dollars, shall have been subscribed, and ten per centum actually paid thereon, in money, to the treasurer, to be elected by said commissioners, who shall give bond for its safe keeping and payment to the treasurer of the company when organized, then it shall be lawful for such subscribers or stockholders, or a majority thereof, to organize said company in accordance with the provisions of this act, and to elect not less than seven nor more than seventeen directors, a majority of whom shall be necessary to the transaction of business, and who shall hold their offices for one year and until their successors shall be elected and qualified; and the said directors shall immediately proceed to elect a president, vice-president, secretary, and treasurer; the president and vice-president shall be directors. At all elections for directors, each share of stock shall be entitled to one vote, which may be given by the holder in person, or by proxy, who shall also be a shareholder. The directors shall hold their offices for any term not exceeding three years, as may be provided in the by-laws; and the annual meeting of stockholders shall take place as provided for in said by-laws.

Sec. 3. That the capital stock of the Texas Pacific Railroad Company shall be fixed by the board of directors, at a sum not exceeding fifty millions of dollars, in shares of one hundred dollars; and when the amount is so fixed it shall never be increased except by consent of Congress. Assessments upon said stock shall only be made by a majority vote of the whole number of directors at a regular meeting, which said assessment shall be paid at the expiration of thirty days after a given notice in one newspaper in each of the cities of Washington, Philadelphia, New York, and New Orleans.

Sec. 4. That the said Texas Pacific Railroad Company shall have power and lawful authority to purchase the stock, land grants, fran-

chises, and appurtenances of, and consolidate on such terms as may be agreed upon between the parties, with any railroad company or companies heretofore chartered by Congressional, State, or Territorial authority, on the route prescribed in the first section of this act; but no such consolidation shall be with any competing through line of railroads to the Pacific Ocean.

SEC. 5. That the said company shall have power and authority to make running arrangements with any railroad company or companies heretofore chartered, or that may hereafter be chartered by Congressional, State, or Territorial authority; also to purchase lands, or to accept donations, or grants of lands, or other property, from States or individuals, for the purpose of aiding in carrying out the object of this company.

SEC. 6. That the rights, lands, land grants, franchises, privileges, and appurtenances, and property of every description, belonging to each of the consolidated or purchased railroad company or companies, as herein provided, shall vest in and become absolutely the property of the Texas Pacific Railroad Company: *Provided*, That in all contracts made and entered into by said company with any and all other railroad company or companies, to perfect such aforesaid consolidation or purchase, the indebtedness or other legal obligations of said company or companies shall be assumed by the said Texas Pacific Railroad Company as may be agreed upon, and no such consolidation or purchase shall impair any lien which may exist on any of the railroads so consolidated or purchased; but said company shall not assume the debts or obligations of any company with which it may consolidate or purchase as aforesaid, to an amount greater than the cash value of the assets received from the same.

SEC. 7. That the said Texas Pacific Railroad Company shall have power to make and enforce rules and by-laws for the election of its officers and the government and management of the business of the company, and to do and perform all needful and proper things to be done and performed to promote the objects of the company hereby incorporated, not inconsistent with the laws of the United States and the provisions of this charter.

SEC. 8. That the right of way through the public lands be, and the same is hereby, granted to the said company for the construction of the said railroad and telegraph line, and the right, power, and authority is hereby given to said company to take, from the public lands adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof. Said right of way is granted to said company to the extent of two hundred feet in width on each side of said railroad where it may pass over the public lands; and there is also hereby granted to said company grounds for stations, buildings, workshops, wharves, switches, side tracks, turntables, water stations, and such other structures as may be necessary for said railroad, not exceeding forty acres of land at any one point.

SEC. 9. That for the purpose of aiding in the construction of the railroad and telegraph line herein provided for, there is hereby granted to the said Texas Pacific Railroad Company, its successors and assigns, every alternate section of public lands, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile on each side of said railroad line, as such line may be adopted by said company, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad in California, where the same shall not have *not have* been sold, reserved, or otherwise disposed of by the United States, and to which a preemption or homestead claim may not have attached at the time the line of said road is definitely fixed. In case any of said lands shall have been sold, reserved, occupied, or preempted, or otherwise disposed of, other lands shall be selected in lieu thereof by said company, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections first above named, and not including the reserved numbers. If, in the too near approach of the said railroad line to the boundary of Mexico, the number of sections of land to which the company is entitled can not be selected immediately on the line of said railroad, or in lieu of mineral lands excluded from this grant, a like

Authority to purchase property of, and to consolidate with any railroad company not having a competing through line.

Authorized to make running arrangements with other companies.

Rights, franchises, &c., of purchased railroads, to vest in the Texas Pacific Railroad Company.

Obligations of the other companies to be assumed.

Prior liens not impaired.

Not to assume debts to a greater amount than the cash value of assets received.

Authority to make and enforce rules and by-laws.

Grant of right of way.

Authorized to take materials from adjacent lands.

Right of way 200 feet in width on each side of said railroad.

Grant of grounds for stations, &c., not exceeding 40 acres, in any one point.

Grant of land. 40 sections per mile in the Territories.

20 sections per mile in California.

If any of the lands have been disposed of other lands may be selected.

Limits, 10 miles beyond the limits of the land grant.

Provision as to lands not obtained by reason of the near approach of the railroad to the Mexican boundary.

"Mineral" not to include iron or coal.

Lands granted in California not further than 20 miles from the railroad, except, &c.

"Ship's channel" not to be construed as conveying special right to water front in San Diego Bay.

Lands granted and not sold or otherwise disposed of in three years to be subject to settlement, &c.

quantity of unoccupied and unappropriated agricultural lands, in odd-numbered sections nearest the line of said railroad may be selected as above provided; and the word "mineral," where it occurs in this act, shall not be held to include iron or coal: *Provided however*, That no public lands are hereby granted within the State of California further than twenty miles on each side of said road, except to make up deficiencies as aforesaid, and then not to exceed twenty miles from the lands originally granted. The term "ship's channel," as used in this bill, shall not be construed as conveying any greater right to said company to the water front of San Diego Bay than it may acquire by gift, grant, purchase, or otherwise, except the right of way, as herein granted: *And provided further*, That all such lands, so granted by this section to said company, which shall not be sold or otherwise disposed of, as provided in this act, within three years after the completion of the entire road, shall be subject to settlement and pre-emption like other lands, at a price to be fixed by and paid to said company, not exceeding an average of two dollars and fifty cents per acre for all the lands herein granted.

Right of way through lands of private persons to be secured in accordance with law.

SEC. 10. That when the route of said railroad and telegraph line shall pass through the lands of private persons, or where it may be necessary for said railroad company to take any lands belonging to private persons for any of the purposes herein mentioned necessary to said road, such right of way through or title to such lands shall be secured in accordance with the laws of the State or Territory in which they may be situated.

Corporation authorized to issue construction bonds and land bonds, secured by mortgage.

SEC. 11. That the Texas Pacific Railroad Company shall have power and authority to issue two kinds of bonds, secured by mortgage, namely: First, construction bonds; second, land bonds. Construction bonds shall be secured by mortgage, first, on all or any portion of the franchises, road-bed, or track of said railroad, and all the appurtenances thereto belonging, when constructed or in the course of construction, from a point at or near Marshall, to ship's channel, in the Bay of San Diego, in the State of California, as aforesaid. Land bonds shall be secured by mortgage, first, on all or any portion of the lands hereby granted in aid of the construction of said railroad as is provided for in this act; second, on lands acquired by any arrangement or purchase or terms of consolidation with any railroad company or companies to whom grants of land may have been made, or may hereafter be made, by any Congressional, State, or Territorial authority, or who may have purchased the same previous to any such arrangement or consolidation:

Mortgage of road and franchises to secure "construction bonds."

Mortgage of grants and acquired lands to secure "land bonds."

Provided, That all the mortgages made and executed by said railroad company shall be filed and recorded in the Department of the Interior, which shall be a sufficient evidence of their legal execution, and shall confer all the rights and property of said company as therein expressed: *And provided also*, That the proceeds of the sales of the aforesaid construction and land bonds shall be applied only in the construction, operation, and equipment of the contemplated railroad line: *And provided further*, That said mortgage shall in no wise impair or affect any lien existing on the property of said company or companies at or before the time of such consolidation.

All mortgages to be filed and recorded in the Department of the Interior.

Proceeds of sales of bonds to be applied only to construction, operation, and equipment of railroad.

SEC. 12. That whenever the said company shall complete the first and each succeeding section of twenty consecutive miles of said railroad and put it in running order as a first-class road in all its appointments, it shall be the duty of the Secretary of the Interior to cause patents to be issued conveying to said company the number of sections of land opposite to and coterminous with said completed road to which it shall be entitled for each section so completed. Said company, within two years after the passage of this act, shall designate the general route of its said road, as near as may be, and shall file a map of the same in the Department of the Interior; and when the map is so filed the Secretary of the Interior, immediately thereafter, shall cause the lands within forty miles on each side of said designated route within the Territories, and twenty miles within the State of California, to be withdrawn from pre-emption, private entry, and sale: *Provided, however*, That the provisions of the act of September, eighteen hundred and forty-one, granting pre-emption rights, and the acts amendatory thereof, and of the act

As 20-mile sections of road are completed patents for coterminous lands shall be issued.

General route to be designated within two years, and map filed.

Lands to be withdrawn from pre-emption, &c.

Provisions of pre-emption and homestead acts extended to other lands.

entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, and the amendments thereto, shall be, and the same are hereby, extended to all other lands of the United States on the line of said road when surveyed, except those hereby granted to said company.

Sec. 13. That the president of the company shall annually, by the first day of July, make a report and file it with the Secretary of the Interior, which report shall be under oath, exhibiting the financial situation of the company, the amount of money received and expended, and the number of miles of road constructed each year; and further, the names and residences of the stockholders, of the directors, and of all other officers of the company, the amount of stock subscribed, and the amount thereof actually paid in, a description of the lines of road surveyed and fixed upon for construction, the amount received from passengers and for freight, respectively, on the road, a statement of the expenses of said road and its fixtures, and a true statement of the indebtedness of said company and the various kinds thereof.

Sec. 14. That the certificates of the capital stock must be signed by the president and secretary, and attested by the seal of the company, and shall contain an extract from the proceedings of the board of directors fixing the amount thereof, as well as from this act, authorizing such issue. All the bonds and mortgages issued by said company must be signed by the president and secretary, and attested by the seal of said company, and shall contain an extract from the law authorizing them to be issued. The face value of said bonds shall be one thousand dollars in gold, and shall be redeemable at such times, and to bear such rate of interest, payable semi-annually in gold, as may be determined by the directors. The total value of the construction bonds to be issued shall not exceed thirty thousand dollars per mile of said railroad, and the total face value of the land bonds shall not exceed two dollars and fifty cents per acre for all lands mortgaged; the total amount of each to be determined by the board of directors.

Sec. 15. That all railroads constructed, or that may be hereafter constructed, to intersect said Texas Pacific Railroad, shall have a right to connect with that line; that no discrimination as regards charges for freight or passengers, or in any other matter, shall be made by said Texas Pacific Railroad Company against any of the said connecting roads; but that the same charges per mile as to passengers, and per ton per mile as to freight, passing from the said Texas Pacific Railroad over any of said connecting roads, or passing from any of said connecting roads over any part of said Texas Pacific Railroad, shall be made by said company as they make for freight and passengers over their own road: *Provided also*, That said connecting roads shall reciprocate said right of connection and equality of charges with said Texas Pacific Railroad: *And provided further*, That the rates charged for carrying passengers and freight, per mile, shall not exceed the prices which may be fixed by Congress for carrying passengers and freight on the Union Pacific and Central Pacific railroads.

Sec. 16. That said road shall be constructed of iron or steel rails manufactured from American ore, except such as may have heretofore been contracted for by any railroad company which may be purchased or consolidated with by the company hereby incorporated, as provided by this act.

Sec. 17. That the said Texas Pacific Railroad Company shall commence the construction of its road simultaneously at San Diego, in the State of California, and from a point at or near Marshall, Texas, as hereinbefore described, and so prosecute the same as to have at least fifty consecutive miles of railroad from each of said points complete and in running order within two years after the passage of this act; and to so continue to construct each year thereafter a sufficient number of miles to secure the completion of the whole line from the said point on the eastern boundary of the State of Texas to the Bay of San Diego, in the State of California, as aforesaid, within ten years after the passage of this act; and upon failure to so complete it Congress may adopt such measures as it may deem necessary and proper to secure its speedy completion.

Annual report, when and where to be made, and to state what.

Certificates of capital stock to be signed by the president and secretary.

Bonds and mortgages. Bonds and interest payable in gold.

Limitation as to construction bonds, \$30,000 per mile.

Land bonds not to exceed \$2.50 per acre for all lands mortgaged.

Other railroad may connect. No discrimination against any connecting roads.

Rates not to exceed the prices fixed by Congress on the Union and Central Pacific.

Iron or steel rails from American ore.

Corporation to commence construction of road simultaneously at San Diego and Marshall.

Fifty miles to be built within two years.

To be completed in ten years.

Upon failure, Congress may adopt measures necessary to secure speedy completion.

President to appoint one commissioner to examine sections of twenty miles as completed.

SEC. 18. That the President of the United States, upon the completion of the first section of twenty miles, shall appoint one commissioner, whose duty it shall be to examine the various sections of twenty miles as they shall be completed, and report thereon to him in writing; and if, from such report, he be satisfied that said company has fully completed each section of its road, as in this act provided, he shall direct the Secretary of the Interior to issue patents to said company for the lands it is entitled to under this act, as fast as each section of said road is completed.

Railroad declared to be a military post-road.

SEC. 19. That the Texas Pacific Railroad Company shall be, and it is hereby, declared to be a military and post-road; and for the purpose of insuring the carrying of the mails, troops, munitions of war, supplies, and stores of the United States, no act of the company nor any law of any State or Territory shall impede, delay, or prevent the said company from performing its obligations to the United States in that regard: *Provided*, That said road shall be subject to the use of the United States for postal, military, and all other Governmental services, at fair and reasonable rates of compensation, not to exceed the price paid by private parties for the same kind of service, and the Government shall at all times have the preference in the use of the same for the purpose aforesaid.

Transportation for the United States not to be impeded.

Fair and reasonable rates of compensation.

SEC. 20. That it shall not be lawful for any of the directors, either in their individual capacity or as members of an incorporated or joint stock company, to make any contracts or agreements with the said Texas Pacific Railroad Company for the construction, equipment, or running of its road, or to have any interest therein; and all such contracts or agreements are hereby declared null and void; and all money or property received under such contracts or agreements may be recovered back for the benefit of the company by any stockholder.

No directors to contract for constructing, &c., any part of the road.

Railroad companies may cross this road.

May have lands for right of way and for depots at a certain price.

SEC. 21. That any railroad company whose route lies across the route of the Texas Pacific Railroad may cross the same, and for the purpose of crossing shall have the right to acquire at the double minimum price all lands, whether of the United States or granted by this act, which shall be needed for a right of way two hundred feet wide through said lands, and for depots, stations, side-tracks, and other needful purposes, not exceeding for such purposes forty acres at any one station.

New Orleans, Baton Rouge and Vicksburg Railroad Company may connect with this road.

Grant of right of way.

Grant of lands to aid in its construction.

20 sections per mile in the State of Louisiana.

Lands to be withdrawn from markets, etc.

SEC. 22. That the New Orleans, Baton Rouge, and Vicksburg Railroad Company, chartered by the State of Louisiana, shall have the right to connect by the most eligible route to be selected by said company with the said Texas Pacific Railroad at its eastern terminus, and shall have the right of way through the public land to the same extent granted hereby to the said Texas Pacific Railroad Company; and in aid of its construction from New Orleans to Baton Rouge, thence by the way of Alexandria, in said State, to connect with the said Texas Pacific Railroad Company at its eastern terminus, there is hereby granted to said company, its successors and assigns, the same number of alternate sections of public lands per mile, in the State of Louisiana, as are by this act granted in the state of California, to said Texas Pacific Railroad Company; and said lands shall be withdrawn from the market, selected, and patents issued therefor, and opened for settlement and pre-emption, upon the same terms and in the same manner, and time, as is provided for and required from said Texas Pacific Railroad Company, within said State of California: *Provided*, That said company shall complete the whole of said road within five years from the passage of this act.

Roads to be completed within five years.

Southern Pacific Railroad Company may construct a road to connect the Texas Pacific Railroad with San Francisco.

Proviso that right of Atlantic and Pacific Railroad Co. shall be in no way impaired.

SEC. 23. That, for the purpose of connecting the Texas Pacific Railroad with the city of San Francisco, the Southern Pacific Railroad Company of California is hereby authorized (subject to the laws of California) to construct a line of railroad from a point at or near Tehachapa Pass, by way of Los Angeles, to the Texas Pacific Railroad at or near the Colorado River, with the same rights, grants, and privileges, and subject to the same limitations, restrictions, and conditions as were granted to said Southern Pacific Railroad Company of California, by the Act of July twenty-seven, eighteen hundred and sixty-six: *Provided, however*, That this section shall in no way affect or impair the rights, present or prospective of the Atlantic and Pacific Railroad Company, or any other railroad company.

ACT OF MAY 2, 1872.

AN ACT supplementary to an act entitled "An act to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its Road, and for other purposes," approved March third, eighteen hundred and seventy-one.

17 Stat., 59.
1871, ch. 122,
vol. xv1, p. 573.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the name, style, and title of the Texas Pacific Railroad Company shall hereafter be "The Texas and Pacific Railway Company;" and the said The Texas and Pacific Railway Company shall have, possess, and enjoy all the rights, privileges, and franchises heretofore conferred upon the said Texas Pacific Railroad Company.

Name changed from "Texas Pacific Rail'd Co." to "Texas and Pacific Rail'y Co."

The rights, privileges, and franchises conferred.

SEC. 2. That the said The Texas and Pacific Railroad Company shall have power and authority to issue the construction and land bonds authorized by the eleventh section of said act of incorporation, for such amounts, not exceeding forty thousand dollars per mile of said road, of construction bonds, as said company may deem needful to provide for the construction and equipment of its line, and to include in the mortgage or mortgages to secure said construction bonds all or any portion of the lands granted in aid of the construction of said railroad; and in the mortgage or mortgages to secure said land bonds, any portion of said lands not so used to secure the construction bonds aforesaid; and all or any portion of the lands acquired by the terms of consolidation lawfully authorized by the fourth section of said act of March third, eighteen hundred and seventy-one, with any railroad company or companies to whom grants of land may have been made, or may hereafter be made, by any Congressional, State, or Territorial authority, or who may have purchased the same previous to any such arrangement or consolidation, and within the time limited for the completion of the road, and all such lands of every description shall be subject to all limitations and conditions now by law existing in relation thereto, and as modified by this act; and this act shall not be construed to revive, enlarge, extend, or create any land grant whatever, beyond that heretofore granted by Congress, and which shall duly inure to said company upon compliance with the terms of this act in relation to the times fixed for completion of said railway, and all such mortgages shall be subject to all the conditions and limitations by law existing under this act and the acts to which it is supplementary in respect of such lands, and shall not be held to vest any title in the mortgage or create any lien on such lands, other than such company is or may become lawfully entitled to vest or create thereunder; but the amount of said land bonds shall not exceed two and a half dollars per acre for all lands covered by the mortgage or mortgages securing the same.

May issue construction and land bonds.

Construction bonds not to exceed \$40,000 per mile. (See sec. 14 of prior act.)

Granted lands may be included in the mortgage to secure said construction bonds.

Land bonds, how secured.

No land grant revived, enlarged, extended, or created by this act.

Amount of land bonds not to exceed, &c.

SEC. 3. That all the mortgages made and executed by said railroad company shall be filed and recorded in the Department of the Interior, which shall be a sufficient evidence of their legal execution: *Provided*, That the aforesaid bonds and the authorized capital stock, or the proceeds thereof, shall be applied only for the purpose of securing the construction, operation, and equipment of the contemplated railroad line, under lawful contract with such parties, and on such terms and conditions as said company may deem needful, and for the further purpose of purchase, consolidation, completion, equipment, and operating of the other roads, as contemplated by said act and specified therein, being a part of the aforesaid railroad line, and for the expenses necessary and incident to the works authorized thereby: *Provided, however*, That said road and its equipment shall be of the standard heretofore required by the United States Government for the existing Pacific Railway lines; *And provided further*, That said mortgage or mortgages shall in no wise impair or affect any lien existing on the property of said company or companies at or before the time of such consolidation.

Mortgages to be filed, and recorded in the Department of the Interior.

Proceeds of bonds and stock, how only to be applied.

Standard of road and equipment to be same as required of the existing Pacific Railways.

Prior lines not affected.

The iron or steel rails to be made from American ore, except, &c.

Construction of road to be commenced where, and to be continued in what direction.

SEC. 4. That said road shall be constructed of iron or steel rails manufactured from American ore, except such as may have been contracted for before consolidation by any railroad company which may be purchased by or consolidated with this company.

SEC. 5. That the said Texas and Pacific Railway Company shall commence the construction of its road at or near Marshall, Texas, and proceed with its construction under the original act and this supplement, or in pursuance of the authority derived from any consolidation as

100 consecutive miles to be in running order within two years. 100 miles each year thereafter.

Time of completion, 10 years from May 2, 1872.

Uniform gauge.

Road from San Diego eastward, when and how to be built.

Upon failure, Congress may adopt measures necessary to secure speedy completion.

Road between Marshall and Shreveport to be controlled and operated by Texas and Pacific.

Repealing clause.

Sec. 6. That all acts or parts of acts inconsistent with this supplement be, and the same are hereby, repealed.

aforsaid, westerly from a point near Marshall, and towards San Diego, in the State of California, on the line authorized by the original act, and so prosecute the same as to have at least one hundred consecutive miles of railroad from said point complete and in running order within two years after the passage of this act; and so continue to construct, each year thereafter, a sufficient number of miles, not less than one hundred, to secure the completion of the whole line from the aforesaid point on the eastern boundary of the State of Texas to the bay of San Diego, in the State of California, as aforesaid, within ten years after the passage of this act; and said road from Marshall, Texas, throughout the length thereof, shall be of uniform gauge: *Provided, however,* That the said company shall commence the construction of said road from San Diego eastward within one year from the passage of this act, and construct not less than ten miles before the expiration of the second year, and, after the second year, not less than twenty-five miles per annum in a continuous line thereafter between San Diego and the Colorado River, until the junction is formed with the line from the east at the latter point or east thereof; and upon failure to so complete it Congress may adopt such measures as it may deem necessary and proper to secure its speedy completion; and it shall also be lawful for said company to commence and prosecute the construction of its line from any other point or points on its line; but nothing in this act contained shall be so construed as to authorize the grant of any additional lands or subsidy, of any nature or kind whatsoever, on the part of the Government of the United States: *Provided,* That said Texas and Pacific Railway Company shall be, and is hereby, authorized and required to construct, maintain, control, and operate a road between Marshall, Texas, and Shreveport, Louisiana, or control and operate any existing road between said points, of the same gauge as the said Texas and Pacific Railroad; and that all roads terminating at Shreveport shall have the right to make the same running connections, and shall be entitled to the same privileges, for the transaction of business in connection with the said Texas and Pacific Railway, as are granted to roads intersecting therewith: *Provided further,* That nothing herein shall be construed as changing the terminus of said Texas and Pacific Railway from Marshall as provided in the original act.

ACT OF MARCH 3, 1873.

17 Stat., 508. 1871, ch. 122. vol. xvi, p. 573.

AN ACT supplemental to an act entitled "An act to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its road, and for other purposes," approved March third, eighteen hundred and seventy-one.

Face value of bonds hereafter issued by Texas and Pacific Railway Company may be in gold or other lawful money.

Former mortgages legalized, if other requirements of law have been complied with.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the face value of all bonds hereafter issued by the Texas and Pacific Railroad [Railway] Company, under the provisions of an act approved March third, eighteen hundred and seventy-one, shall, at the option of the company, be either in gold or other lawful money of the United States, bearing interest, at like option of the company, either in gold or other lawful money of the United States; and any mortgage heretofore executed by said company, securing bonds payable in any lawful money of the United States other than gold, and the bonds recited therein, and to secure which said mortgage was given, are hereby legalized, and said mortgage and bonds shall have the same effect as though they had been authorized by the act to which this is a supplement: *Provided,* That in all respects the requirements of that law in regard to such mortgage and bonds have been fully complied with.

ACT OF JUNE 22, 1874.

AN ACT supplementary to an act entitled "An act to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its road, and for other purposes."

18 Stat., 197.
1871, ch. 122, vol.
xiv, pp. 573, 579.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Texas and Pacific Railway Company is hereby empowered to secure, by one or more mortgages upon the whole or any portion of its line, the construction bonds heretofore authorized to be issued, and to cancel the mortgage now on record with the Secretary of the Interior so far as the same can be done without prejudice to existing rights, and to substitute therefor the mortgage or mortgages hereby authorized, which substituted mortgages shall expressly reserve all rights which may have been acquired under the existing mortgage: *Provided*, That the aggregate of the said bonds to be issued under and secured by said mortgage or mortgages shall not exceed the limits heretofore fixed by Congress; and said mortgages for the division east of Fort Worth shall embrace the roads and property of the Southern Pacific Railroad Company and of the Southern Trans-continental Railway Company, heretofore merged in and consolidated with the said Texas and Pacific Railway Company, under the authority and requirements of the laws of the State of Texas; and which roads so merged as aforesaid shall for that and all other purposes be deemed and taken to be a part of the said Texas and Pacific Railway, and shall, hereafter, be subject to all the provisions and limitations of the act of Congress incorporating said company and of the supplements thereto: *And provided further*, That nothing in this act shall be construed or have the effect to entitle said corporation to any other or further rights to public lands, or in any other respect as against the United States, than such as by law it is now entitled to.

Texas and Pacific Railway Company authorized to secure construction bonds by new mortgages. To cancel mortgage on record with Secretary of the Interior.

To substitute mortgages authorized by this act.

Limit heretofore fixed not to be exceeded.

What new mortgages shall embrace.

Consolidated roads, how to be deemed.

No other or further rights granted.

Or. July 7, 1898, Congress enacted the following, which was one of the provisions of the general deficiency bill:

"SETTLEMENT WITH THE CENTRAL PACIFIC AND WESTERN PACIFIC RAILROADS: That the Secretary of the Treasury, the Secretary of the Interior, and the Attorney-General, and their successors in office, be, and they are hereby, appointed a commission with full power to settle the indebtedness to the Government growing out of the issue of bonds in aid of the construction of the Central Pacific and Western Pacific bond-aided railroads, upon such terms and in such manner as may be agreed upon by them, or by a majority of them, and the owners of said railroads: *Provided*, That any and all settlements thus made shall be submitted in writing to the President for his approval or disapproval, and unless approved by him shall not be binding.

"That said commission shall not agree to accept a less sum in settlement of the amount due the United States than the full amount of the principal and interest and all amounts necessary to reimburse the United States for moneys paid for interest or otherwise: *And also provided*, That said commission are hereby empowered to grant such time or times of payment by installment, and at such rates of interest, to be not less than three per centum per annum, payable semiannually, and with such security as to said commission may seem expedient: *Provided, however*, That in any settlement that may be made the final payment and full discharge of said indebtedness shall not be postponed to exceed ten years and the whole amount, principal and interest, shall be paid in equal semiannual installments within the period so limited, and in any settlement made it shall be provided that if default shall be made in any payment of either principal or interest or any part thereof then the whole sum and all installments, principal and interest, shall immediately become due and payable, notwithstanding any other stipulation of said settlement: *Provided further*, That unless the settlement herein authorized be perfected within one year after the passage of this act, the President of the United States shall at once proceed to foreclose all liens now held by the United States against said railroad companies and to collect the indebtedness herein sought to be settled, and nothing in this act contained shall be held to waive or release any right, lien, or cause of action already held by the United States.

"That there is hereby appropriated, out of any money in the Treasury not otherwise appropriated, the sum of twenty thousand dollars to defray the expenses of said commission in making the said settlement."

APPENDIX B.

Syllabi of decisions of the United States Supreme Court in cases affecting the bond-aided Pacific railroad companies and to which the United States are parties.

No. 1. The United States *v.* the Union Pacific Railroad Company. (91 U. S., 72.)

INTEREST.

Suit brought to determine whether the company is required to pay the interest before the maturity of the principal of the bonds.

Held, that "such was *not* the intention of Congress."

No. 2. The Union Pacific Railroad Company *v.* Hall *et al.* (91 U. S., 343.)

EASTERN TERMINUS OF THE UNION PACIFIC RAILROAD.

Suit brought to determine the initial point of the Iowa Branch of the Union Pacific Railroad.

Held, that "the legal terminus of the railroad is fixed by law on the Iowa shore of the Missouri River; that the bridge is a part of the road, and the company is under obligation to operate and run the whole road, including the bridge, as one connected and continuous line."

No. 3. The United States *v.* The Union Pacific Railroad Company. (98 U. S., 569.)

CREDIT MOBILIER CASE.

Held, that "no case for relief is made by the bill, and the decree of the court below dismissing it is affirmed."

No. 4. The Union Pacific Railroad Company *v.* The United States. (99 U. S., 402.)

Case in some respects supplemental to that of "United States *v.* Union Pacific Railroad Company." (No. 1.)

Questions determined are—

(1) Date of completion of road—"November 6, 1869."

(2) What is included in net earnings? "These earnings must be regarded as embracing all the earnings and income derived by the company from the railroad proper and all the appendages and appurtenances thereof, including its ferry and bridge at Omaha, its cars, and all its property and apparatus legitimately connected with its railroad. If * * * it should be found that the net earnings in any one year were not more than sufficient to pay the interest on the first-mortgage bonds accruing in said year, then the company will not be decreed to pay any portion of the said 5 per cent of net earnings for that year. But if the net earnings were more than sufficient to pay said interest, the excess will be subject, so far as it will go, to the payment of said 5 per cent; but the company will not be decreed to pay any more than said excess."

No. 5. The United States *v.* The Central Pacific Railroad Company. (99 U. S., 449.)

"This case, in all material respects, involves the same questions as Union Pacific Railroad Company *v.* United States" (No. 4).

Completion of road fixed as of the same date as the Union Pacific Railroad (November 6, 1869).

No. 6. *The United States v. The Kansas Pacific Railway Company.* (99 U. S., 455.)

Same as foregoing. Alleged date of completion of road, November 6, 1869.

Held, that the subsidy bonds granted only in respect of the original road terminating at the one hundredth meridian, are a lien on that portion only, and that the 5 per cent of the net earnings is only demandable on the net earnings of said portion (393 $\frac{1}{4}$ miles).

No. 7. *The United States v. The Denver Pacific Railway and Telegraph Company.* (99 U. S., 460.)

Suit brought to recover 5 per cent of net earnings upon the whole line of the Kansas Pacific, including the branch from Denver to Cheyenne.

Held, that neither the company nor its railroad or property is liable in any way for the payment of any debt incurred for such bonds received by the Kansas Pacific Railroad Company.

No. 8. *The United States v. The Sioux City and Pacific Railroad Company.* (99 U. S., 491.)

Suit brought to recover 5 per cent of net earnings.

Held, that if the amount of net earnings is insufficient to pay the interest on the company's first-mortgage bonds, the Government can not claim the 5 per cent which would otherwise be applicable to its subsidy. (See decision in *Union Pacific Railroad Company v. United States*, No. 4.)

No. 9. *The Union Pacific Railroad Company v. The United States.* (99 U. S., 700.)

Constitutionality of sinking-fund act affirmed.

No. 10. *The Union Pacific Railroad Company v. The United States.* (104 U. S., 662.)

Action brought to recover compensation for services in carrying the mails and employes. United States sets up counterclaim for 5 per cent of net earnings.

Held, The sixth section of the act of Congress of July 1, 1862, chapter 120, incorporating the Union Pacific Railroad Company (12 Stat., 489), constitutes a contract between the United States and the company, whereunder the latter, for its service in transporting upon its road, from January 1, 1876, to October 1, 1877, the mails, and the agents and clerks employed in connection therewith, is entitled to compensation at fair and reasonable rates, not to exceed those paid by private parties for the same kind of service.

(2) The contract is not affected by the sections of the Revised Statutes declaring that the Postmaster-General may fix the rate for such service when performed by railroad companies to which Congress granted aid, and he had no authority to insist that it was not binding upon the United States.

(3) The company, having been required to perform the contract, lost no rights by a compliance therewith, as it protested against and rejected all illegal conditions attached to the requirement.

No. 11. *Western Pacific Railroad Company v. The United States.* (108 U. S., 510.)

PUBLIC LANDS.

In a suit brought by a district attorney of the United States to set aside a patent conveying public lands, objection was taken in this court that it does not sufficiently appear that the suit was brought under authority from the Attorney-General: *Held*, that "the objection not having been taken below, the fact of such authority could be inquired into and shown here."

On the evidence it appeared that the lands in question were mineral lands, and were known to be such by the applicant for the patent and agent for the railroad company at the time of the application. The patent was set aside.

No. 12. *The Sioux City and Pacific Railroad Company v. The United States.* (110 U. S., 205.)

Suit to recover an internal-revenue tax on the undivided net earnings of the plaintiff's railroad.

Held, that "in a suit to collect an internal-revenue tax on the undivided net earnings of the road, carried to a fund or to construction account, the plaintiff was not

entitled to have the interest upon these bonds deducted from its net earnings before settling the amount to be subject to the tax; but that the amount of that interest, if earned and carried to a fund or charged to construction, was taxable."

No. 13. The Union Pacific Railway Company *v.* The United States. (116 U. S., 154.)

Suit brought to recover for transportation of the mails in accordance with the requirements of the company's charter.

Held, That "case presents no question of law, and the motion is denied."

No. 14. The Union Pacific Railway Company *v.* The United States. (117 U. S., 355.)

Controversy as to what are "fair and reasonable rates of compensation" which are required to be charged the United States for the transportation over the defendant's railroad of mails, troops, supplies, etc., by section 6 of act of July 1, 1862.

Held, That "the amount claimed by the Treasury Department as fair and reasonable was proper. Also, that the rates of transportation by the Union Pacific Railway Company for the United States govern transportation over bridge between Council Bluffs and Omaha."

No. 15. The United States *v.* The Central Pacific Railroad Company. (118 U. S., 235.)

Suit brought to recover compensation for services rendered the United States in transporting persons and freight over those parts of its railroad in the building of which it had not been aided by the Government. The United States demurred. The demurrer was overruled and judgment rendered in favor of the claimant. The United States appealed.

Held, That "compensation is limited to services rendered by the aided roads. The construction of the second section of the act of May 7, 1878, contended for by the appellee, is, therefore, right." Judgment affirmed.

No. 16. The United States *v.* The Central Pacific Railroad Company. (138 U. S., 84.)

NEW CONSTRUCTION.

Held, That "the sums expended by the Central Pacific Railroad Company for betterments and improvements on its road, its buildings, and equipments, whereby the capital of the company invested in its works is increased in permanent value, are not to be regarded as part of its current expenses to be deducted from its gross receipts in reaching and determining the amount of the net earnings upon which a percentage is to be paid to the United States."

This case is distinguished from the case of Union Pacific Railroad Company *v.* United States. (No. 4.)

No. 17. The United States *v.* The Union Pacific Railway Company. (148 U. S., 562.)

PUBLIC LANDS.

This case arose upon demurrers and a plea to a bill in equity filed by the United States against the Union Pacific Railway Company and one hundred and seventy-three other corporations and individuals, to procure the surrender and cancellation of certain land patents issued to the Kansas Pacific Railway and the Denver Pacific Railway and Telegraph Company, and for a decree declaring all conveyances of such lands clouds upon the title of the United States.

Held, That "the right conferred by the act of July 1, 1862, as subsequently amended, upon the corporation afterwards known as the Union Pacific Railway Company, eastern division, to construct its road substantially in a direct line to Denver, and from thence northerly, to connect with the Union Pacific Railroad at Cheyenne, and to acquire a grant of public lands thereby upon each side of its railroad as constructed, was not affected by the act of March 3, 1869, in such a way as to make the Union Pacific, eastern division, terminate at Denver, and to cause its land grants to terminate there; but, on the contrary, the act of 1862 being a grant *in presenti*, the company's right to lands upon each side of its road became fixed from the moment it proceeded, under the act of 1866, to establish its line of definite location so as to make the same extend from Kansas City westwardly to Denver, and thence northwardly to Cheyenne, and the act of 1869 is not to be construed as breaking the continuity of the line.

"If there were any doubt with regard to the interpretation of the act of 1869, the construction placed upon it by the Land Department for eighteen years, under which lands have been put upon the market and sold, would be entitled to considerable weight."

R E P O R T
OF THE
DIRECTOR OF THE TWELFTH CENSUS.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
Washington, D. C., November 1, 1901.

SIR: I have the honor to report as follows concerning the operations of this office from November 1, 1900, to the above date:

The work of tabulating the returns and results of the field work of the enumerators and special agents of the Twelfth Census has progressed with reasonable celerity. Much difficulty has been experienced, however, and more or less delay caused by the reduction of the clerical force, owing to the absence of employees from either illness or annual leave.

The law provides that the four principal reports shall be placed in the hands of the public by the 1st of July, 1902, and this requirement has rendered it absolutely necessary to maintain a clerical force adequate to complete the work within the prescribed period. The statisticians made estimates of the time needed to finish the particular branch assigned to each of them. The plans so submitted have been greatly interfered with owing to the absence of clerks from duty, as explained above. It was hoped by the 1st of November a large number of employees could be dispensed with; but inasmuch as the work has been retarded, owing to the difficulty of maintaining the clerical force at its maximum, it is not likely that there will be any material reduction until after the first of the year. The officials of the office believe that their allotted task will be completed in ample time.

It was hardly to be expected out of the large number of agents employed in the field work—about 55,000 in all—that there would not be some who would prove incompetent and unfaithful to duty. The Director has endeavored to enforce the census act to the letter, and through the assistance of the Attorney-General has proceeded against all offenders. Please find below a statement of the various prosecutions that have been conducted by this office.

MARYLAND.

St. Mary County.—Stephen A. Abell, Charles H. Guyther, Philip T. Graves, Daniel J. Bowles, enumerators, and Joseph H. Ching, attorney at law. The preliminary examination in the Geographer's Division showed that in this county these enumerators had made false

and fraudulent returns by placing on the schedules fictitious names—names of persons who had died prior to taking the census and the names of nonresidents.

All these men were arrested on warrants sworn out in Baltimore, and were brought before the Federal grand jury at that city, and nine indictments against them were returned on May 6, there being four indictments against each enumerator individually, and four against each enumerator and Ching jointly. The trial began May 27, but on May 25 Guyther appeared before the jury and pleaded guilty. Sentence was suspended, and he was called as a witness for the Government. Ching was convicted, on June 8, of conspiracy with Guyther, and was sentenced to two years' imprisonment and to pay a fine of \$1,000. An appeal was taken and the case is now before the United States court of appeals. Guyther was sentenced to one day in jail and to pay a fine of \$100. Abell, Bowles, and Graves were acquitted of the conspiracy charge, and the charge against Graves for making false and fictitious returns was withdrawn. Bowles pleaded guilty to making false returns, and was sentenced to sixty days in jail and to pay a fine of \$200. Abell was tried on June 24 on a charge of making false and fictitious returns. The jury failed to agree, and he will probably be tried again some time in November.

Charles County.—The examination of the schedules, made at the same time as in St. Mary County, showed the same condition of affairs, and the results of the investigation were laid before the grand jury in Baltimore, who rendered true bills against Henry Mattingly, an enumerator, who came to court on June 15, pleaded guilty, and was sentenced to one day in jail and to pay a fine of \$200.

Anne Arundel County.—An investigation was also made in this county, and evidence was presented to the grand jury who found true bills against William Frisbee Anderson and Fred H. Borneman for making false and fictitious returns. Anderson was convicted June 24, and sentenced to pay a fine of \$200. Borneman's case was continued until the fall term of the district court, and the trial will probably take place in November.

Baltimore County.—An examination of the schedules returned by Eli F. Wilhelm, in reporting the deaf, dumb, and blind, developed the fact that his returns, when tested by correspondence with individuals reported, were, in many instances, incorrect. The case was submitted to the United States attorney for the district of Maryland, who reported that, it being uncertain whether they could prove the charges against him, they advised that proceedings be not started.

PENNSYLVANIA.

D. Smith Talbot, supervisor of Second district.—Proceedings were started against Mr. Talbot for his failure to pay the interpreters who had assisted the enumerators in taking the census in his district, Mr. Talbot having rendered his account for their services and received the money from this office. After proceedings against him had been begun by the United States attorney at Philadelphia, the defendant made payment in full to all interpreters, except in those instances where the interpreters had departed from the district. The United States attorney was authorized by the Department of Justice on May 24 last to continue this case until the next term of court.

NEW MEXICO.

City of Santa Fe, Pedro Sánchez, supervisor.—An investigation into the accounts of this supervisor showed that he had failed to pay interpreters employed by him during the enumeration, although the money had been remitted to him for that purpose from this office, and that he had also made false and fictitious returns of the amount of services rendered by some of the interpreters. Upon application to the Department of Justice, the United States attorney for the district of New Mexico was instructed to begin proceedings at once against Sánchez and his clerk, Sena. They were arrested, and information was presented to the grand jury, who found indictments against both Sánchez and his chief clerk, Sena, under the charge of having filed false and fraudulent vouchers. Two other indictments were secured against them, charging each of them with embezzlement and forgery. The United States attorney writes that it was not practicable to try these cases at the last term of court on account of want of time, but that they will come up for trial at the next term.

TENNESSEE.

Selmer, McNairy County.—Henry C. Gooch, an enumerator, was found, upon examination of the schedules, to have made false returns of the population. An examination by special agent was made and the fact established that he had placed on his schedules fictitious names—names of persons who had died prior to taking the census and the names of nonresidents. A warrant was sworn out for this man and he was arrested. He will probably be tried at the November term of court.

MISSISSIPPI.

Third supervisor's district.—Samuel W. Glidden, enumerator in E. D. 71; Paul W. Davidson, E. D. 74; William Knight, E. D. 76; Scott E. J. Watson, E. D. 85; Abraham L. Stringer, E. D. 87; William H. Toler, E. D. 92: An investigation of the agricultural schedules returned by these men, in comparison with the population schedules, showed that they had made false and fictitious returns of the number of farms in their districts. Proceedings were brought against them, they were arrested, and their cases were presented to the grand jury, which met at Vicksburg, and on July 3 rendered indictments for all six on charges as alleged. Their trials will come up at the next term of the court, which will be early in January.

ARIZONA.

Charles W. Pugh, special agent for the Agricultural Division of the Census Office, Phoenix.—An examination of this man's expense vouchers, rendered from time to time during the summer of 1900, led to the suspicion that he was having subvouchers signed in blank and filling them in afterwards for much larger amounts than he had actually expended, and that he had also put in fraudulent vouchers for bills he had never contracted. An investigation was begun by mail with parties whose names and addresses were signed on the subvouchers, which corroborated the impression that the office had as to his honesty. The

case was presented through the Department of Justice to the United States attorney, who arrested Mr. Pugh, and he was indicted by the grand jury and brought to trial at the July term of the court. The case was continued on a demurrer, which the court now has under advisement, and can not be reopened until the November term of court. Indictments against Pugh, of the same character, were also secured at Florence, Ariz. This case will probably come up after the case above referred to is decided. We have also evidence of fraud on Pugh's part, committed on a trip to California, but it was thought best not to take up the California case until after the Arizona cases were settled.

I submit herewith statements from the chief statisticians showing the condition of the work of their respective divisions at the present time:

POPULATION DIVISION.

W. C. HUNT, *Chief Statistician.*

I have the honor to transmit the following statement concerning the condition of the work of the Population Division to October 31, 1901, inclusive:

In the work of machine tabulation there have been counted to October 31, inclusive, 314,280,314 cards, representing very nearly 84 per cent of the entire number of cards to be handled. If this figure, representing the actual number of cards handled to date, is compared with the original estimate as to the number of cards necessary to be handled daily in order to complete the machine work by March 1, 1902, it appears that we are to date (October 31) more than 19,000,000 cards ahead of my estimate. It is apparent, therefore, from this statement, that the work of machine tabulation is likely to be completed easily within the time originally estimated, and that this work could be completed early in January, 1902, if the number of machines now in operation (about 140) could be utilized. Toward the close of the machine work, however, it will not be possible to use to advantage a large number of tabulating machines, and this will extend somewhat the period of machine tabulation, but certainly not, with even a small number of machines, beyond the estimated date of completion, namely, March 1, 1902.

The first four runs of the cards, for which are obtained the data contained in the tabular presentations to be included in part 1 of the Report on Population, and equivalent to the handling of 210,292,859 cards, are completed. The fifth, sixth, seventh, eighth, and ninth runs, from which are obtained the data contained in the tabular presentations to be included in part 2 of the Report on Population, represent the handling of 165,103,387 cards, of which 103,987,455 have been counted to date, including all of the fifth run, from which are derived the data relating to ages (in detail), conjugal condition, school attendance, illiteracy, and inability to speak English. There remain, therefore, 61,115,932 cards to be counted, subdivided by runs as follows:

	Total cards.	To be counted Oct. 31, 1901.
Fifth run	76,303,387	.....
Sixth run	190,100,000	8,794,287
Seventh run	27,700,000	22,351,165
Eighth run	15,500,000	14,507,396
Ninth run	15,500,000	15,463,084
Total	165,103,387	61,115,932

¹ Including the second handling of approximately 2,400,000 cards.

This statement shows that for the sixth and seventh runs, from which are derived the data relating to occupations, there has been counted to October 31, 46 per cent, and for the eighth and ninth runs, from which are derived the data relating to dwellings and families and the ownership of homes, 3 per cent; this part of the machine tabulation having only recently been commenced.

Of the estimated number of cards (27,700,000) representing persons with gainful occupations to be handled on the sixth and seventh runs there were originally punched, approximately, 21,300,000 cards, leaving 6,400,000 cards to be rejected by the machines and subsequently classified, this number of cards representing occupations that were not classified when the cards were originally punched. Of the

6,400,000 cards, there have been classified to date 3,852,024, or 60 per cent. The average number of cards classified daily during the month of October was 36,764, and on this basis there is no reason why this classification work should not be completed during the month of January, 1902.

Of the estimated number of family cards (15,500,000) to be handled on the eighth and ninth runs there have been punched to date 6,458,914, or 42 per cent. During the month of October the average number of cards punched daily was 114,917. Since the 1st of September the force engaged in punching the family cards has been increased from less than 100 to a maximum force of 233, the latter number representing the whole number of seats at present available for the work of keyboard punching. This number of machines is kept in operation daily, and with the present daily output it is safe to assume that the work of punching the family cards will be completed by the close of January, 1902.

The present condition of the tabular matter (general tables) for part 1 of the report on population is briefly summarized as follows:

Part 1.

Subjects.	Printed.	Plated.	In type.	In copy.	To be supplied.	Total pages.
Aggregate population	480					480
Sex, general nativity, and color	81	49	74			204
State or Territory of birth				46		46
Country of birth				74		74
Foreign parentage				21	81	102
Citizenship and years in the United States			44	50	6	100
Total	561	49	118	191	87	1,006

From this summary it appears that practically 91 per cent of the tabular matter comprising part 1 is in process of printing, 561 pages, or 56 per cent, being already printed, 49 pages, or 5 per cent, plated, and 309 pages, or 30 per cent, either in type or in copy. The 87 pages not yet supplied to the printer comprehend the data relating to foreign parentage, derived from the fourth run of the cards, which has only recently been completed, but the copy resulting therefrom will be made in time to follow the completion of the matter already in process of printing.

The textual matter to accompany the general tables, representing approximately 200 pages of print, is also in process of preparation, and will be supplied to the printer at an early day. Much of the analytical text has already been prepared and used in the several bulletins which have been issued to date, and only needs to be amplified in certain cases for use in the final report.

Of the 1,014 pages of tabular matter to be included in part 2 of the report on population, 100 pages, relating to "school, militia, and voting ages," and derived from the first run of the cards, are already in type or in copy. Of the remaining 914 pages, 414 pages comprehend tables relating to ages, conjugal condition, school attendance, illiteracy, and inability to speak English, 354 those relating to occupations, and 146 those relating to dwellings and families and the ownership of homes. The tables representing the 414 pages first mentioned are derived from the fifth run of the cards, which, as I have already stated, is entirely completed.

The work of compiling the results derived from the fifth run will be taken in hand immediately following the completion of the work compiling the results relating to foreign parentage, etc., derived from the fourth run, and this work will be followed in turn by that relating to occupations and the family data, in order that upon the completion of the copy needed for part 1 the printer may be supplied with copy for part 2 in the order, as nearly as possible, of the several subjects, as follows:

Part 2.

Subjects.	Number of pages.	Subjects.	Number of pages.
Ages	150	Dwellings and families	56
School, militia, and voting ages	100	Ownership of homes	90
Conjugal condition	96		
School attendance	62	Total	1,014
Illiteracy	75	Textual matter (estimated)	186
Can not speak English	28		
Occupations	354	Aggregate	1,200

¹ In type or copy, as previously stated.

The present condition of my work, as herein outlined, shows that there is every prospect for completing the work relating to part 1 at a comparatively early date, in order that that portion of the report may be issued during the month of December, if possible, and that copy for part 2 can be supplied to the printer from time to time thereafter, so that the last batch of copy may be transmitted not later than April 15, 1902, according to my estimate made under date of February 2, 1900. It is not possible to state positively that this will be the case, but I see no reason now why I should not conform substantially to the statements made in my original estimate.

DIVISION OF MANUFACTURES.

S. N. D. NORTH, *Chief Statistician.*

The work of the division of manufactures is rapidly drawing to completion under circumstances which apparently render it possible to comply with the provision of the census act which requires the main results of the manufacturing census to be completed and published prior to July 1, 1902.

In order to insure this result it has been necessary to increase the force of the division temporarily to 412 clerks; and the work has been greatly expedited by the substitution of mechanical appliances. The entire tabulation of general schedule No. 3 has been done upon tabulating typewriter machines, this being the first use of this machine in census work. By making a carbon copy of the tabulation sheets the amount of clerical labor in handling the returns has been enormously reduced, and the completion of the work within the time limit set by Congress would not have been possible without the aid of these machines except by a large increase in the clerical force. Some forty adding machines of the latest improved pattern have also been utilized in the division in obtaining results from the tabulation sheets. Actual experience has demonstrated that one clerk with an adding machine can turn out at least four times the amount of work in addition that can be achieved by a clerk adding mentally. There has been in addition a much higher average of general accuracy than is attainable by the mental process.

The several stages of the work of the division of manufactures already completed are those of classification, which was finished on February 9; revision, which was finished on September 26; tabulation of general schedule No. 3, which was finished on October 7; tabulation of special schedules by hand, which was finished on October 14. The force of the division is now very largely concentrated upon the work of addition and summarization, and this work is now progressing with a steady swing, as the clerks become more expert through experience, which indicates that it will be finally completed about the 1st of March, 1902. From the summarization the work passes to the section of final results, which is now so organized that it can prepare the figures for the printer practically as fast they are received. Barring unforeseen contingencies, therefore, it seems probable that the entire material for Part II of the manufacturing statistics—a volume of approximately 1,200 pages—will be ready for the printer on about March 15. This volume will contain the manufacturing statistics by States, and will also include, in connection with each State, the statistics of the several cities in that State. At the present writing the work has been completed and published in bulletin form for the States of Arkansas, Arizona, Colorado, Connecticut, Delaware, Florida, Idaho, Indian Territory, Iowa, Kansas, Louisiana, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma Territory, Oregon, Rhode Island, South Dakota, Utah, Vermont, and Wyoming. The States completed and shortly to be sent to the printer are Alabama, California, Georgia, Illinois, Kentucky, Maryland, Michigan, and the Hawaiian Islands. These States represent 30.5 per cent of the total product of manufacturing and mechanical industries as reported at the Eleventh Census.

Simultaneously with the work upon the statistics of the States, the preparation of the statistics of the United States totals by States and by industries, which will constitute the major portion of Part I of the manufacturing volumes, has been progressing, and it will be possible to place the entire copy for Part I—also comprising about 1,200 pages—in the hands of the printer within a month or six weeks from the date when copy is completed for Part II.

Simultaneously, also, work has been progressing upon the reports for selected industries, which will comprise Part III of the manufacturing volumes. Census bulletins have already been printed or are in type for the following industries: Coke manufacturing, petroleum refining, salt, paper and pulp mills, copper, lead, and zinc smelting and refining; gas, railroad repair shops, and the tar and turpentine industry. The final results in the following selected industries are now in the hands of expert special agents, who are engaged in the preparation of the text for their reports,

which it will be possible to publish during the winter months: Brick and pottery products, dyeing and finishing of textiles, silk manufacture, flax, hemp, and jute manufacture; leather, tanned and curried; boots and shoes; glass; iron and steel—tin plate works, blast furnaces, and rolling mills; shipbuilding—steel and iron vessels and wooden vessels.

REPORT ON COTTON GINNING.

During the current year the division of manufactures has prepared and published two bulletins showing the cotton crops grown in the years 1899 and 1900, as returned to the Census Office by the cotton ginners.

The statistics of the crop of 1899 were gathered largely by the enumerators under instructions to secure a return from every cotton ginney operated for the crop mentioned. By the canvass of the enumerators a complete mailing list of the gineries of the country was compiled, but it was problematical whether the office could obtain similar reports through the mails. The results of the canvass by mail, as shown by the second cotton bulletin, demonstrated this method to be entirely feasible. Every ginning establishment in the United States was heard from, either directly or indirectly. Wherever there was failure on the part of the ginners to respond to the inquiries of the Census Office, the cooperation of the local postmasters was secured through the courtesy of Postmaster-General Smith, and thus the product of every ginney obtained, or the fact ascertained that it had not been in operation for the crop of 1900.

The second report, like the first, is therefore believed to present complete statistics of the cotton crop and give the same with a detail and accuracy not possible under other methods, having to depend upon reports of transportation lines and port receipts.

This office has secured from cotton producers, cotton exchanges, cotton factors, and cotton manufacturers an overwhelming approval of the services rendered by these reports. I am, therefore, led to recommend that Congress pass a joint resolution authorizing and instructing the Census Office to make a similar canvass of the cotton gineries annually. Under its present organized system of machinery this office will be able to publish this cotton report as early as the month of May or June in each year, or three to four months in advance of their possible publication through other agencies. The commercial advantages resulting from these earlier, more accurate, and detail statistics as to the volume of the annual cotton crop are too obvious to be further dwelt upon.

DIVISION OF AGRICULTURE.

L. G. POWERS, *Chief Statistician.*

I herewith submit a detailed report of the state of the work in the agricultural division of the Twelfth Census, and the prospect of completing the same within the time called for by the act of Congress. The work of the division naturally divides itself into a number of distinct branches concerning each of which I will make specific mention.

After the preliminary work incidental to the sending out of the schedules and receiving the same and settling the accounts of the enumerators, the first important work of the division has been the revision of schedules. This includes the examination of the same for the detection and correction of errors and omissions by the enumerators. It involves the sending out of over a million letters to the farmers and enumerators and the entry upon the schedules of the information received in return. This work has been divided into four different branches, known in the office as the first, second, third, and fourth revisions. There are about 5,725,000 farm schedules, and all have to pass through each of these four revisions. The amount of labor expended on such revisions up to and including October 15, 1901, was 820,895 hours, or the equivalent of the work of one clerk for 117,271 days. At that time the first and second revisions had been finished, and of the 5,725,000 schedules all but 50,000 had passed through the third revision, and all but 210,000 through the fourth or final revision.

The labor required to complete the third revision was equal to that of one clerk for 300 days; that needed for the fourth revision, the work of one clerk for 1,425 days. Of the work required to revise the schedules 98.5 per cent had, therefore, been performed October 15. With the present force the third revision will be completed about November 1, and the fourth revision shortly thereafter.

By the method adopted in the division, after the schedules have been revised the facts contained thereon are transferred to cards by punching machines preparatory to their addition on the Hollerith tabulating machines.

There are to be punched 5,725,000 farm cards, or one for each schedule, and not

far from 120,000,000 crop and animal cards, or a little more than 20 for each schedule. Of these there were punched, October 15, a total of 5,047,510 farm cards and 100,007,871 crop and animal cards. There remained to be punched 877,500 farm cards and 20,000,000 crop cards, or about 12 per cent of the former and 17 per cent of the latter. There had been expended in punching and gang punching, and in the necessary supervision, a total of 602,917 hours of work, or the equivalent of the services of 86,131 clerks for one day. The work remaining to be done represents the labor of 17,000 clerks for one day, and with the present force will be completed in about 35 working days, or not far from the 1st of December.

After the cards have been punched and gang punched they are sorted and arranged in order for the tabulating machines through which they are run and the figures upon them automatically added. By the method at present in use the 5,725,000 farm cards are run through the machines three times, making the equivalent of tabulating 17,175,000 cards once. Of this work there had been completed October 15 the following amount:

Tabulated for the first time	4, 918, 330
Tabulated for the second time.....	1, 458, 161
Tabulated for the third time	872, 050
Total	7, 248, 541

There remained the equivalent of 10,900,000 cards to be tabulated once.

Of the 120,000,000 crop and animal cards those reporting live stock are passed through the tabulating machines three times; those reporting cereals, cotton, and other leading crops twice, and the others only once. The exact number of cards in each of these subdivisions can not as yet be estimated exactly. The work of tabulating the crop and animal cards will, however, probably be the equivalent of tabulating 220,000,000 cards once. Of that work the following portion has been performed October 15:

Cards tabulated once	85, 617, 194
Cards tabulated twice.....	5, 956, 717
Cards tabulated three times.....	1, 174, 409
Total	92, 748, 320

The unfinished work of the tabulation, therefore, probably equals that of tabulating 128,000,000 cards once.

From the foregoing it can be seen that October 15 there had been completed 42 per cent of the work of tabulating the farm cards and that of tabulating the crop and animal cards

The work expended prior to October 15 in operating the tabulating machines, sorting the cards, and other work incidental to tabulation by the Hollerith system has been 267,849 hours, or the equivalent of the labor of 36,835 clerks for one day. At the present rate of work the tabulation of the farm cards will be completed shortly before February 1, 1902. With the machines in use and that will be in operation by October 20, the average rate of tabulating the crop and animal cards will be 1,100,000 per day. This will permit the completion of the tabulation in 117 working days from October 15. By working a small force at night after the completion of the work of card punching it is expected to shorten the time of tabulation to 100 days and close the same not far from February 10.

The results of the additions made by the tabulating machines are transferred to result slips that are sent to the sections of final results, and there critically examined. The same sections take measures for detecting all errors, and place the figures in tables for the final report. The amount of labor performed upon this branch of work October 15 was 154,234 hours, or the equivalent of the work of 22,033 clerks for one day. This is about 40 per cent of the total amount of labor in the sections of final results. As the work is arranged the last table will be finished and ready for the printer about ten days after the completion of the work on the tabulating machines.

The tables of the two volumes of the final report will cover about 1,057 pages, of which 712 are tables by counties and 345 tables by States and Territories. A portion of each of the latter class of tables is completed when the corresponding county table is finished. The work upon the two classes of tables goes forward with equal speed, and the State tables are completed at substantially the same time as the county tables. The county tables are prepared in their first form shortly after the tabulation of the data for the same on the first run of cards. They are, however, held for revision until the completion of the final run for the State of which they form a part. The completion of the county tables, therefore, measures the rapidity with which the tabular work of the report progresses.

There had been completed and made ready for the printer, October 15, 100 of the

712 pages of county tables. A much larger number of pages were finished but awaited verification from the second and third runs of cards. It is expected that prior to the close of the week ending October 26 there will be 128 pages of the county tables ready for the printer. During the month ending November 30 there will be completed 100 pages; during the month ending December 28, 99 pages; during the month ending January 25, 155 pages; and during the five weeks ending March 1, 202 pages. On this latter date all county and State tables will be finished. If the tabulation is completed by February 10, as stated above, the date for preparing the county and State tables for publication will be about February 15, instead of March 1, as stated above.

In addition to the work embodied in the tabular matter referred to above, the division is carrying on an investigation relating to irrigation. This will be embodied in a report of some 250 pages. It will be prepared and copy sent to the printer from time to time between January 1 and March 1, at which date the last copy relating to the subject will be finished.

In the foregoing exhibit I have given no statement of the amount of labor expended in the general work of the division, nor of the amount of labor expended in a number of minor and incidental investigations. These in the past have made up quite a large aggregate, but, with the exception of the general work of supervision and direction, will be small in the future. I omit detailed mention of them for the reason that a statement thereof is not necessary for the proper presentation of the present state of the work and the plans for completing the same in the time called for by the act of Congress.

After the completion of the tables, which it is expected will take place not far from the 1st of March or a little before, the only work of the division remaining will be writing the introduction to the two volumes. Work upon that introduction is being performed at the present time, and it is expected that all the materials will be collected by the 1st of March and in a form that will require less than a month to put them in shape for the printer. This will close the work of the division with reference to the census of agriculture. As the printer can readily print and bind the volumes after April 1 prior to July 1 it can be seen that there is every reason to expect so to close the work of the division as to comply with the act of Congress establishing the Census Office.

DIVISION OF VITAL STATISTICS.

W. A. KING, *Chief Statistician.*

I have the honor to submit the following report of the work of the Division of Vital Statistics since my last annual report (October 16, 1900):

At the date of the last report we had not quite completed the collection of the data.

The number of deaths reported by the enumerators was 686,615. In addition to these, transcripts of registration records aggregating 628,813 deaths were secured. In order to determine the accuracy of registration and to make the returns as complete as possible, both enumeration and registration returns were secured for the greater part of the registration area, and the two were thoroughly and systematically compared.

The comparisons made resulted in the addition of some 60,936 deaths to the registration records, and the further completion of the same by supplying 63,249 items of omitted information.

The total number of deaths secured from both sources was 1,039,094. This is exclusive of stillbirths. The corresponding figures in 1890 were 841,419, the increase being 197,675, or 23.5 per cent. It is gratifying to state that the returns are much more complete than at the last census. The registration data are also much more uniform, and therefore more valuable, on account of the preliminary work of this office in securing modifications and improvements in the forms of certificates used, so as to supply the essential details required for the census compilations.

The registration area was extended by the inclusion of Maine and Michigan and 96 additional cities of 8,000 or more population in nonregistration States. It now embraces 10 entire States (including the District of Columbia) and 153 cities in other States, and comprehends a population of 28,807,269, or about 38 per cent of the entire population of the United States.

During the year the schedules were all carefully edited to adapt the statement of facts to the mechanical system of tabulation employed, and the data transferred to cards to be counted by the tabulating machines.

Five runs of the cards have been completed, furnishing the data for tables showing deaths by sex and age in relation to color, general nativity, parent nativity; to cause of death; to conjugal condition, and to time (months) in various combinations. The remaining counts involve only part of the cards (such as those having stated occupations, etc.), and provision has been made to execute them expeditiously.

A bulletin of 63 pages was prepared and published on August 20, 1901, giving the preliminary results for States and cities, with an analysis of the registration figures as far as the data available at that time would permit.

Copy for the final report, covering the first eight tables, and estimated to make about 680 pages of printed matter, has been forwarded to the printer.

Additional copy representing about 400 pages of printed matter has been completed, but it is not in the consecutive order of the tables, and is held pending the completion of the intermediate matter.

The work of this division has been performed well within the estimates of time, clerical force, and cost. There is no question that the work, so far as it is not dependent upon population data, at least, will be completed before the time limit fixed by Congress.

At the last annual meeting of the National Conference of Charities and Correction the question of the possibility of the creation of a national bureau of charities and correction was discussed.

From the expressions of the conference as a whole and of its individual members, there is evidently a strong desire on the part of those who can appreciate the importance of such work to have it done under the direction of the National Government. In order that the information gathered should be of permanent value, it must be collected by means of uniform blanks and methods throughout the whole country. This can be done only through the agency of a national bureau, such as the Census Bureau. At present such information is gathered by the different States, but their methods are so varied that the results can not be safely used for purposes of comparison.

The most important things that could be done by the Bureau are as follows: To prepare and publish annually, or at other stated intervals—

1. A list of all the public and private charitable, correctional, and kindred institutions, societies, and associations in the United States.
2. Statistics showing the value of property, receipts and expenditures, and work of such institutions and societies.
3. Statistics showing the movements of the population in the institutions.
4. Judicial statistics showing the number of arrests, convictions, and other dispositions made of the arrested; also the number of times that individual criminals have been convicted.

Statistics of prisons are not sufficient. The lengths of the sentences vary so in different States that a list of the number of prisoners at any given moment in any State is not an accurate measure of the volume of crime in that State. Statistics from coroners are also valuable for the study of suicide.

The present census law may give sufficient power to the Director to do nearly all that is necessary. His power, however, seems to be limited to institutions, and might not be held to cover statistics of associations, the results of whose work are necessary to a complete view of the situation. Neither does the law seem to authorize the payment to institutions, societies, or courts for such information and transcripts of records as may be most economically obtained by this means. If necessary, it would seem that the law should be amended so as to leave no doubt on these subjects.

I hand you herewith an estimate of the appropriations required for census purposes for the fiscal year ending June 30, 1902. Also statement from the disbursing officer showing expenditures during the past fiscal year.

Respectfully, yours,

W. R. MERRIAM, *Director.*

The SECRETARY OF THE INTERIOR.

APPENDIX.

EXHIBIT A.

Cost of the Twelfth Census by divisions, from November 1, 1900, to October 31, 1901, both dates inclusive.

Administration:		
Salaries	\$207,797. 27	
Rent	38,603. 84	
Office fixtures and furniture	4,168. 80	
Printing machinery and fixtures	4,697. 46	
Stationery	28,305. 87	
Printing (not otherwise charged):		
Salaries and wages	\$47,641. 43	
Public Printer	7,702. 79	
Interior Department	1,481. 74	
Miscellaneous	2,638. 75	
		59,464. 71
Miscellaneous:		
Examinations, material for repairs, etc., electrical equipment, light, heat, ice, stable, telephones, telegrams, advertising, travel (other than supervisors and special agents), and office supplies		15,962. 32
		\$369,000. 27
Supervisors		64,912. 86
Enumerators		46,465. 31
Population		1,189,981. 23
Vital statistics		76,825. 85
Manufactures		482,542. 45
Agriculture		1,212,182. 67
Methods and results		28,765. 09
Alaska:		
Disbursed at Washington	186. 00	
Disbursed by S. C. Dunham		
Disbursed by A. F. Wines		
Disbursed by W. A. Kelly		
		186. 00
Hawaiian Islands		1,239. 90
Blind and deaf		26,629. 66
Disbursements as per "Statement of the condition of the appropriation for the expenses of the Twelfth Census"	3,498,731. 26	
Add settlements by Interior Department	6,228. 23	
Total		3,504,959. 49

EXHIBIT B.

Estimate of appropriations required for the expenses of the twelfth census for the fiscal year beginning July 1, 1902, and ending June 30, 1903, in accordance with the act of March 3, 1899, and amendments thereto.

1. Director of the Census	\$7,500
One assistant director	4,000
Five chief statisticians, at \$3,000 each	15,000
One chief clerk	2,800
One disbursing clerk	2,500
One purchasing agent	2,500

One superintendent of printing	\$2, 500
One geographer	2, 500
One appointment clerk	2, 500
Seven expert chiefs of divisions; at \$2,000 each	14, 000
Two stenographers, at \$2,000 each	4, 000
Fifteen clerks of class 4	27, 000
Twenty-one clerks of class 3	33, 600
Twenty-eight clerks of class 2	39, 200
One captain of the watch	840
Two messengers	1, 680
Total	162, 120
2. Clerks, copyists, computers, skilled laborers, watchmen, assistant messengers, laborers, messenger boys, and charwomen, 1,200 at \$1,000 per annum	1, 200, 000
3. Special agents to secure information for special reports	100, 000
4. Rental of quarters	30, 000
5. Stationery	25, 000
6. Furniture, carpets, ice, lumber, hardware, dry goods, advertising, telegraphing, expressage, horses, wagons, harness, food for and shoeing of horses, diagrams, awnings, shelving, file cases, file holders, repair of cases and furniture, fire, lights, and all other expenses for miscellaneous supplies	50, 000
7. For the purchase of law books, books of reference and periodicals, manuscript, investigation of census work in other countries, etc., to be made a specific item in appropriation bill	5, 000
8. For use of machines of the Hollerith Tabulating Machine Company, including cards	50, 000
9. Printing and binding census reports	350, 000
TOTALS.	
Item No. 1	162, 120
Item No. 2	1, 200, 000
Item No. 3	100, 000
Item No. 4	30, 000
Item No. 5	25, 000
Item No. 6	50, 000
Item No. 7	5, 000
Item No. 8	50, 000
Item No. 9	350, 000
Total	1, 972, 120

RECEIPT, DISTRIBUTION, AND SALE OF PUBLIC DOCUMENTS.

DEPARTMENT OF THE INTERIOR,
Washington, November 16, 1901.

SIR: I have the honor to submit herewith, for transmission to Congress, in compliance with the provisions of an act approved January 12, 1895, a report of the number of documents received, distributed, and sold by this Department during the year 1900-1901, to which are added certain suggestions regarding the general distribution of the publications of the Government.

JOHN G. AMES,
Clerk in Charge of Documents.

The SECRETARY OF THE INTERIOR.

Publications of the Government received, distributed, and sold by the several offices and bureaus of the Department of the Interior, 1900-1901.

OFFICE OF THE SECRETARY.

Publications.	Received.	Distrib- uted.
Reports of the Secretary of the Interior and of subordinate officers of the Department, bound.....	8,318	14,987
Reports of the Secretary of the Interior and of subordinate officers of the Department, pamphlet.....	45,360	37,269
Land Decisions and Digest.....	1,025	827
Pension Decisions and Digest.....	484	489
Official Register of the United States.....		147
Map of the United States, 1896 and 1899.....	21,950	20,202
Maps of States and Territories.....	2,300	150
Records of War of the Rebellion.....		242
Statutes at Large.....	88	52
Revised Statutes, United States, 1873.....		1
Revised Statutes, United States, 1878.....	8	5
Supplement to Revised Statutes, volume 1.....	8	3
Supplement to Revised Statutes, volume 2 (parts 1 to 5).....	265	107
Session Laws.....	508	368
Congressional Directory.....	1,017	786
Register of Department of the Interior.....	1,994	2,366
Resources of Alaska.....		4
Gold Fields of Alaska, Becker.....		17
Geology of the Yukon District, Alaska, Spurr.....		17
Mineral Resources of the United States.....		696
Bulletins of the Geological Survey.....	9,600	12,188
Monographs of the Geological Survey.....	1,600	2,518
Geologic and Topographic Folios.....	8,000	6,698
Lands of the Arid Regions.....		4
Indian Handbook, 1899.....		267
Treatise on Practice in Pension Bureau.....		1
Reports of Court of Claims.....	23	21
Estimates of Appropriations.....	24	29
Digest of Appropriations.....	36	36
Comprehensive Index of Government Publications.....		8
Catalogue of Government Publications.....		3
Reports of Survey of Territories, Hayden.....		261
Flora of the District of Columbia.....		3
Bibliography of North American Paleontology.....		179
North American Finnipeds.....		1
Atlas of Uintah Mountains.....		1

Publications of the Government received, distributed, and sold by the several offices and bureaus of the Department of the Interior, 1900-1901—Continued.

OFFICE OF SECRETARY—Continued.

Publications.	Received.	Distributed.
Fresh Water Rhizopods.....		1
Tertiary Vertebrata.....		194
Tertiary Insects of North America.....		204
Cretaceous and Tertiary Floras.....		119
Compiled Statutes of the District of Columbia.....		201
High Plateaus of Utah.....		2
Reports of the Ninth Census.....		2
Reports of the Tenth Census.....		2,007
Reports of the Eleventh Census.....		35,912
Red Cloud Investigation.....		143
Revision of Indian Treaties.....		6
History of the Public Domain.....		1
Land Laws.....		3
Methods of Business in Department.....		1
Miscellaneous publications from libraries, etc.....	1,196	
Miscellaneous publications, to Superintendent of Documents.....		1,436

PATENT OFFICE.

Official Gazette, weekly edition, pamphlet.....	353,600	339,204
Official Gazette, quarterly edition, bound.....	200	134
Indexes:		
Annual.....	7,000	6,466
Quarterly.....	28,000	23,821
General, 1790-1873.....		2
Index to Patents on Electricity and Supplement.....		87
Index to French patents.....		1
Index to Italian patents.....		1
Decisions of the Commissioners and United States Courts.....	1,500	356
Specifications and Drawings of Patents, monthly volumes.....	6,110	4,110
Rules of Practice.....	10,000	7,900
Patent Laws.....	5,000	1,500
Roster of Registered Attorneys.....	1,200	1,100
Reports of the Commissioner.....	2,000	1,225
Trade-mark Laws and Rules.....		1,000
List of Women Inventors and Supplement.....		30
Plan of Classification.....	6,000	3,800

LAND OFFICE.

Louisiana Purchase.....	500	325
Maps of States and Territories.....	23,100	7,459
Report of the Commissioner, bound.....	1,000	892
Report of the Commissioner, pamphlet.....	2,000	1,800
Circulars.....	167,150	163,200
Manual of Surveying Instructions.....		125

PENSION OFFICE.

Report of the Commissioner.....	1,630	1,370
Laws of the United States Governing Granting of Army and Navy Pensions.....		3,282
Digest of Pension Laws.....	6	5
Roster of Examining Surgeons.....		18
Roster of Disqualified Attorneys.....		45
Treatise on Practice of Bureau.....		52
Instructions to Examining Surgeons.....		1,350
Pension Bureau: Its Officers and Their Duties.....		15
Alphabetical List of Battles.....	1,492	791
Instructions to Special Examiners.....		320

OFFICE OF COMMISSIONER OF RAILROADS.

Report of the Commissioner of Railroads.....	1,000	921
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Publications of the Government received, distributed, and sold by the several offices and bureaus of the Department of the Interior, 1900-1901—Continued.

OFFICE OF INDIAN AFFAIRS.

Publications.	Received.	Distrib- uted.
Report of the Commissioner, bound	354	354
Report of the Commissioner, pamphlet.....	1,200	1,188
Contract Tables.....	1,200	1,158
Report of Superintendent of Indian Schools.....	1,600	1,970
Miscellaneous publications.....	4,400	1,511

BUREAU OF EDUCATION.

Annual Report for 1898-99:		
Volume 1	20,000	19,420
Volume 2	20,000	19,340
Annual reports for prior years.....		7,180
Annual Statement of the Commissioner, 1900.....	1,000	250
Annual statements for prior years.....		205
Education in Alaska, 1897-98		32
Education in Alaska, 1898-99	1,000	690
History of Higher Education in—		
Connecticut		163
Iowa.....		139
Maryland.....		120
Mississippi.....		435
Missouri.....		760
New Hampshire.....		289
Ohio.....		96
Rhode Island.....		394
Tennessee.....		55
Wisconsin.....		85
History of Education in—		
Arkansas.....	1,000	897
Florida.....		209
Georgia.....		113
Kansas.....	1,000	882
Kentucky.....		675
Louisiana.....		80
New Jersey.....	1,000	1,000
New York.....	1,000	782
Vermont.....	1,000	891
History of College of William and Mary.....		46
Education in—		
Southwestern Virginia		208
Cuba, Porto Rico, and the Philippines		176
Italy and Greece.....		825
Educational Tours in France.....		631
Educational Values.....		247
Educational and Patho-Social Studies.....		154
Educational Exhibit at International Centennial Exposition, 1876		60
Experimental Study of Children.....	1,000	524
Physical Training		404
Promotions and Examinations in Graded Schools.....	2,000	877
Report on Art and Industry:		
Part 2.....		20
Part 3.....		55
Part 4.....		43
Report on Sunday Schools.....		130
Report on Educational Congress, Columbian Exposition		44
Report on Legal Education.....		4
Report on Spelling Reform.....		3,412
Report on School Architecture and Plans for Graded Schools.....		69
Review of Reports of British Royal Commission on Technical Education, with Notes.....	459	50
Rise and Growth of the Normal School Idea		116
Rules for a Dictionary Catalogue.....	1,000	1,063
National Aid to Education.....		9
Needs of the Bureau of Education.....		8
What Is Education.....		34
World's Columbian Exposition:		
Circular No. 2.....		34
Circular No. 4.....		8
Statistics of National Aid to Education.....		173
Schedule for Student Work for Centennial, 1876		22
Schools in British India.....		22
Construction of Library Buildings.....		33
Coeducation of the Sexes in Public Schools, United States.....		100
Instruction in Chemistry and Physics in United States		21
Medical Instruction in United States, 1776-1876	76	10
Outlines for a Museum of Anatomy.....		22
Biological Teaching in Colleges of United States.....		38

Publications of the Government received, distributed, and sold by the several offices and bureaus of the Department of the Interior, 1900-1901—Continued.

BUREAU OF EDUCATION—Continued.

Publications.	Received.	Distrib- uted.
Fifty Years of Freedom in Belgium		476
Elementary Education in London		15
Analytical Index to Barnard's Journal of Education		24
Honorary Degrees Conferred in American Colleges		6
Fourth International Prison Congress, Report on		151
Abnormal Man		99
Museums Illustrative of Education		150
A. L. A. Catalog, 1896-97		288
Technical Education and Industrial Drawing		110
Educational Training for Railway Service	1,000	106
Education and Crime	1,000	
Statistics of Professional and Allied Schools	1,000	38
National School of Science		69
Three Papers on Manual Training	1,000	560
Classification and Promotion of Pupils	1,000	343
Public Schools in District of Columbia	190	
Notes on History of American Text-books	1,000	108
Thomas Jefferson and the University of Virginia		179
Digest of Public School Laws		310
Documents Illustrative of Educational History	51	10
Sanitary Conditions for Schoolhouses		159
Shorthand Instruction and Practice		353
Notes of Education at World's Columbian Exposition		2
Proceedings of Department Superintendents N. E. A., 1880	250	
Report of Statistics of Public Libraries	1,000	698
Report of World's Library Congress, Columbian Exposition		561
Miscellaneous Topics	1,006	
Reindeer Report, Alaska, 1899	1,000	969
Reindeer Report, Alaska, 1900	1,000	662

GEOLOGICAL SURVEY.

Twentieth Annual Report:		
Part 2	3,591	3,408
Part 5	3,630	3,550
Part 5 (Atlas)	3,400	3,320
Part 7	4,387	4,387
Separates—		
Part 2—		
Brief memorandum on the geology of the Phillipine Islands	300	147
A study of Bird Mountain	300	198
Devonian fossils from southwestern Colorado; the fauna of the Ouray limestone	300	189
A preliminary paper on the geology of the Cascade Mountains in northern Washington	300	176
Status of the Mesozoic floras of the United States	300	224
The stratigraphic paleontology of the Pottsville formation in the southern anthracite coal field, Pennsylvania	300	252
Part 5—		
The forests of the United States	300	300
The Pikes Peak, Plum Creek, and South Platte Forest Reserves	300	154
The White River Plateau and Battlement Mesa Forest Reserves	300	106
The San Gabriel, San Bernardino, and San Jacinto Forest Reserves	300	177
The Flathead Forest Reserve	800	128
The Bitterroot Forest Reserve	300	126
Part 7—		
Reconnaissance in the Sushitna basin and adjacent territory	300	128
A reconnaissance in southwestern Alaska	300	132
A reconnaissance from Resurrection Bay to Tanana River	300	198
A reconnaissance of a part of Prince William Sound and the Copper River district	300	292
A reconnaissance in the Tanana and White River Basin	300	150
Twenty-first Annual Report.		
Part 1	2,771	2,345
Part 6	505	505
Part 6 (continued)	508	453
Separates—		
Part 1—		
Report of Director	1,300	807
Triangulation, primary traverse, and spirit levelling	300	101
Part 6—		
Coal	4,075	4,075
Manganese ores	400	400
The American and foreign iron trades	550	550
Iron ores	1,250	1,250
Antimony	100	100

Publications of the Government received, distributed, and sold by the several offices and bureaus of the Department of the Interior, 1900-1901—Continued.

GEOLOGICAL SURVEY—Continued.

Publications.	Received.	Distrib- uted.
Twenty-first Annual Report—Continued.		
Separates—Continued.		
Part 6—Continued.		
Quicksilver	100	100
Aluminum and bauxite	100	100
Zinc	500	500
Copper	400	400
Coke	650	650
Nickel and cobalt	100	100
Gold and silver	100	100
Lead	500	500
An occurrence of tungsten ore in eastern Nevada	100	100
Tungsten, molybdenum, and vanadium	300	300
Petroleum	1,050	1,050
Natural gas	1,800	1,800
Asphaltum and bituminous rock	150	150
Stone	7,100	7,100
Clay	1,000	1,000
Portland cement	500	500
Soapstone	150	150
Precious stones	1,500	1,500
Abrasive materials	200	200
Phosphate rock	500	500
Sulphur and pyrite	200	200
Gypsum	400	400
Salt	500	500
Mica	150	150
Fluorspar	100	100
Asbestos	150	150
Mineral paints	250	250
Barytes	250	250
Fuller's earth	100	100
Feldspar and quartz	100	100
Mineral waters	900	900
Monographs:		
39. The Eocene and Lower Oligocene coral faunas of the United States	1,350	924
40. Aedeagous and clavicorn coleoptera from the Tertiary deposits at Florissant, Colo	1,350	871
Bulletins:		
164. Reconnaissance in the Rio Grande coal fields of Texas	3,000	2,615
165. Contributions to the geology of Maine	3,008	2,614
166. A gazetteer of Utah	3,000	2,602
167. Contributions to chemistry and mineralogy from the laboratory of the United States Geological Survey	3,000	2,680
168. Analyses of rocks from the laboratory of the United States Geological Survey	3,000	2,834
169. Altitudes in Alaska	3,000	2,710
170. Survey of the boundary line between Idaho and Montana from the international boundary to the crest of the Bitterroot Mountains	3,000	2,848
171. Boundaries of the United States and of the several States and Territories	3,000	2,676
172. Bibliography and index of North American geology, paleontology, petrology, and mineralogy for the year 1899	3,000	2,718
173. A synopsis of American fossil Bryozoa, including bibliography and synonymy	3,000	2,634
174. Survey of the northwestern boundary of the United States	3,000	2,668
175. Triangulation and spirit leveling in Indian Territory	3,000	2,730
176. Some principles and methods of rock analysis	3,000	2,950
Water Supply and Irrigation Papers:		
34. Geology and water resources of a portion of southeastern South Dakota	1,000	750
35. Operations at river stations, 1899, Pt. 1	1,000	974
36. Operations at river stations, 1899, Pt. 2	1,000	914
37. Operations at river stations, 1899, Pt. 3	1,000	847
38. Operations at river stations, 1899, Pt. 4	1,000	840
39. Operations at river stations, 1899, Pt. 5	1,000	871
40. The Austin Dam	1,000	426
41. The windmill, its efficiency and economic use, Pt. 1	1,000	965
42. The windmill, its efficiency and economic use, Pt. 2	1,000	441
43. Conveyance of water in irrigation canals, flumes, and pipes	1,000	687
44. Profiles of rivers in the United States	1,000	632
Maps, topographic:	538,653	327,603
Folios, geologic and topographic:	66,000	42,936
Volumes received prior to July 1, 1900		138,621

SALE OF PUBLIC DOCUMENTS.

The following statement shows the number and price of the several documents sold under the provisions of a joint resolution, approved March 8, 1897, authorizing the Secretary of the Interior to sell at cost any publications of the Government available for this purpose:

	Copies.	Price per copy.	Total.
Official Register of the United States:			
1899, volume 1.....	14	\$2.00	\$28.00
1899, volume 2.....	12	2.40	28.80
Land Decisions:			
Volume 1.....	14	1.05	14.70
Volume 2.....	16	1.15	18.40
Volume 3.....	16	1.07	17.12
Volume 4.....	16	1.15	18.40
Volume 5.....	17	1.05	17.85
Volume 6.....	15	1.45	21.75
Volume 7.....	16	1.10	17.60
Volume 8.....	15	1.16	17.40
Volume 9.....	15	1.15	17.25
Volume 10.....	16	1.15	18.40
Volume 11.....	16	1.10	17.60
Volume 12.....	16	1.15	18.40
Volume 13.....	17	1.15	19.55
Volume 14.....	18	1.15	20.70
Volume 15.....	18	1.05	18.90
Volume 16.....	20	1.05	21.00
Volume 17.....	20	1.05	21.00
Volume 18.....	21	1.05	22.05
Volume 19.....	25	1.05	26.25
Volume 20.....	11	1.05	11.55
Volume 21.....	24	1.05	25.20
Volume 22.....	21	1.15	24.15
Volume 23.....	35	1.05	36.75
Volume 24.....	44	1.05	46.20
Volume 25.....	48	1.05	50.40
Volume 26.....	54	1.15	62.10
Volume 27.....	65	1.15	74.75
Volume 28.....	75	1.05	78.75
Volume 29.....	165	1.15	189.75
Volume 30, in signatures, unbound.....	99	1.00	99.00
Digest of Decisions.....	44	1.25	55.00
Pension Decisions:			
Volume 1.....	1	1.10	1.10
Volume 2.....	1	1.00	1.00
Volume 3.....	1	1.00	1.00
Volume 4.....	1	1.10	1.10
Volume 5.....	1	.85	.85
Volume 6.....	2	.95	1.90
Volume 7.....	2	1.10	2.20
Volume 8.....	5	1.05	5.25
Volume 9.....	5	1.05	5.25
Volume 10.....	28	1.05	29.40
Volume 11, in signatures, unbound.....	40	1.00	40.00
Digest of Decisions.....	9	1.15	10.35
Treatise on Practice of Pension Bureau.....			
	18	.70	12.60
Tenth Census:			
Forest Trees of North America.....	2	2.00	4.00
Petroleum, Coke, and Building Stones.....	4	1.75	7.00
Mining Laws of United States.....	1	1.10	1.10
Mining Industries of United States.....	1	2.00	2.00
Water Power of the United States, part 1.....	6	1.25	7.50
Water Power of the United States, part 2.....	4	1.00	4.00
Power and Machinery employed in Manufactures, etc.....	1	.85	.85
Monographs—			
The Newspaper and Periodical Press of the United States.....	1	.50	.50
Eleventh Census:			
Mineral Industries.....	1	1.50	1.50
Indians Taxed and not Taxed.....	2	2.35	4.70
Statistics of Churches.....	1	1.10	1.10
The Statistical Atlas.....	4	4.00	16.00
The Growth of Industrial Art.....	239	2.00	478.00
Revised Indian Treaties.....	4	2.75	11.00
Mineral Resources of the United States, 1898, volume 1.....	1	1.20	1.20
Mineral Resources of the United States, 1898, volume 2.....	1	1.20	1.20
Compiled Statutes of the District of Columbia.....	1	2.50	2.50
United States Map.....	1,845	.80	1,476.00
State and Territorial Maps.....	3,201	.12	384.12
Total.....			3,690.99

The sum of \$7,341.04 was received by the Geological Survey from the sale of its reports.

SUPREME COURT REPORTS.

Three hundred and seventy-six copies each of volumes 177 to 180 of the United States Reports were during the fiscal year received by the Department from the reporter of the Supreme Court in compliance with the provisions of section 681 of the Revised Statutes and of act of February 12, 1897, which have been distributed to judicial and other officers of the Government entitled to receive them. I regret to be obliged again to report that no final action was taken by Congress in the matter of additional provision for the purchase and distribution of United States Reports in the interest of judicial and executive officers of the Government, who must either provide these volumes at their own expense or discharge their official duties as best they can without them. The necessity for such provision results largely from the fact that the number of United States judges and of places at which United States courts are held has by recent legislation been greatly increased, especially in our Territories and in our new island possessions. None of these can be furnished with these reports under existing laws without striking from the list of recipients some who have been hitherto supplied. It seems hardly just that any discrimination should be made in this matter among officers whose functions are identical, or nearly so, but this will continue to be the case until the legislation repeatedly recommended by this Department is enacted. A bill embodying these recommendations passed the Senate during the last Congress and was favorably reported by the House Committee on the Judiciary, but at so late a day that no time was found for its consideration by the House itself. In view of the fact that the committees having the matter in charge in both Houses of Congress have twice taken favorable action in the premises, and that the Senate has twice confirmed the action of its committee by unanimously passing the bill reported, it is confidently hoped that adequate provision for all United States judges and courts and all executive officers of the United States requiring these reports in the discharge of their public duties will be made during the next session of Congress.

UNITED STATES MAP.

A new and most excellent wall map of the United States, prepared by the General Land Office, was issued during the year. The boundaries of the several Territories acquired by the Government through treaties or otherwise, as determined by the latest investigations, are distinctly shown upon this map, as are also, along its lower border, the several islands that have recently come into its possession.

Of this map 34,525 copies have been received from the publishers, 10,064 of which have been delivered to the Senate, 20,190 to the House of Representatives, and 985 to the General Land Office.

Another edition, that of 1900, is being prepared, and will be published as early as practicable.

If a judicious and systematic distribution of this valuable publication could be secured, every high school and all the larger public schools of the country, as well as all public libraries, could soon be provided with at least one copy. Under present methods, however, distributed as it is by three or four separate agencies, duplication and triplication can not be avoided, and thus many parties remain unsupplied who might otherwise secure the work.

DISTRIBUTION OF PUBLIC DOCUMENTS.

In fact this evil, involving waste in many directions and needless expenditure of public money, attends the distribution of nearly all public documents. In a special report made by me in 1894, relative to the printing and distribution of public documents, I said that—

The one reform most essential, whether regard be had to economy or to the general convenience or to approved business methods, is the establishment of one single bureau or office at which the whole business of distributing the publications of the Government shall be conducted. It is doubtful if any other instance can be cited in the conduct either of important public or private affairs in which methods so illy considered, so wasteful, so wanting in system, and in general, so vicious, have obtained and continued in force year after year with no serious effort at correction. The business of publishing and distributing documents has grown to large proportions, and everyone will admit that the distributing as well as the publishing should be done on sound business principles. The Government has no money to squander in this direction more than in the transaction of its ordinary executive business, over the expenditures for which a most watchful supervision is exercised. The question of how most advantageously to the public, most economically to the Government, most conveniently to all concerned, the distribution of the vast mass of public literature which issues from the Government Printing Office can be made certainly deserves consideration, and if better methods than now prevail can be suggested they should be adopted without delay.

The chief evil of the present method is found in the fact that of nearly all public documents there are at least three, and often four, distinct agencies of distribution, viz, the Senate, the House of Representatives, the Department under whose supervision the document is prepared, and the special bureau or office from which it emanates. All these distributing agencies act for the most part without any information as to or regard for what the others are doing. One unavoidable consequence is that duplication and triplication of Government favors in the form of documents, often costly, exists to a large degree. Another consequence is the employment of an unnecessary number of officers and agents in transacting the work of distribution. A third consequence of this multiplicity of agents of distribution is the scarcely less than general confusion that exists, as well in the minds of members of Congress as on the part of the public at large, as to where many Government publications are to be obtained, the ascertainment of which information costs often not a little trouble and annoyance.

All these and other evils could in the main be remedied by the establishment of a bureau of documents, under the general management of a competent executive officer, at which the entire business of distributing documents, excepting such as are required for official use, should be conducted. This would make possible at once the introduction of sound business principles and methods into the conduct of this large department of public affairs, which under existing conditions can not possibly be done. It would so centralize and systematize the whole work as to reduce expenses to the minimum. It would to a large extent relieve the Capitol and the several Executive Departments of that which is now an incumbrance in the way of masses of documents occupying rooms which are greatly needed for other purposes. It would make possible, by a simple system of registration, the prevention of all duplication in the distribution of documents of sufficient value to warrant the expense of such registration, and thus make a given number of the same available for the largest service. It would subserve the convenience of all having to do with documents, as it would provide a single source from which documents themselves or information regarding them could always promptly be secured. It would relieve members of Congress of much of the trouble and annoyance which they now experience, as it substitutes one place and agency for dealing with this whole question of documents, in place of the many now existing.

The experience and observation of seven years' additional service in my present position have only served to confirm the views then expressed. These views were in part embodied in the act of January 12, 1895, and a partial reform accomplished by the establishment of the Office of Superintendent of Documents in the Government Printing Office. The chief evil then existing, however, was in no wise remedied by this legislation, viz, that resulting from the multiplicity

of agencies of distribution. The lack of system in this business and the wasteful and extravagant methods that then prevailed are still continued, involving a needless expenditure of many thousands of dollars annually and a public service seriously defective in its administration. The only adequate remedy for these evils is the centralization and consolidation of the whole business of distributing the publications of the Government in one single office, which, if not an independent bureau, should be attached to one of the Executive Departments. It is confidently believed that in addition to other advantages accruing from the establishment of such a bureau the centralization of the distribution of all public documents would soon prove beyond all question that the number of copies of nearly all documents issued is far in excess of any legitimate demand for them, and that there could readily be a reduction in the number published of not less than one-third of the ordinary editions. This is now very evident from the accumulations of documents in the folding rooms of the two Houses of Congress, in the Office of the Superintendent of Documents, and elsewhere. The evidence of this excess in publication would be still more impressive if all these accumulations of undistributed documents were brought together in a single office. It is probable that under the system above advocated a saving of not less than \$100,000 annually might be accomplished without in the least infringing the rights or prerogatives of members of Congress or officers of the Government, or impairing in any measure the value of the service rendered by the issue of public documents for the benefit of the people.



REPORT
OF THE
**BOARD OF VISITORS OF THE GOVERNMENT HOSPITAL FOR
THE INSANE.**

OFFICERS OF THE HOSPITAL, JUNE 30, 1901.

BOARD OF VISITORS.

Rev. BYRON SUNDERLAND, D. D., ¹ <i>President of the Board.</i>	Mrs. MARY E. FULLER.
F. M. GUNNELL, M. D., U. S. N.	WALTER WYMAN, M. D., <i>Supervising Surgeon-General, M. H. S.</i>
Mrs. A. M. GANGEWER.	WILLIAM W. JOHNSTON, M. D.
JOHN MOORE, M. D., U. S. A.	HON. WILLIAM A. MAURY.
SAMUEL H. KAUFFMAN.	

EXECUTIVE COMMITTEE OF THE BOARD.

Messrs. GUNNELL, MAURY, and MOORE.

CHAPLAINS.

Rev. W. E. BLISS.	Rev. M. P. SULLIVAN. ²
Rev. W. G. DAVENPORT.	Rev. W. E. PARSON, D. D.
Rev. JOHN CHESTER, D. D.	

MEDICAL OFFICERS.

A. B. RICHARDSON, M. D., *Superintendent and ex officio Secretary of the Board of Visitors.*
M. J. STACK, M. D., *First Assistant Physician, in charge of Male Department, Main Building.*
J. C. SIMPSON, M. D., *Second Assistant Physician, in charge of Detached Buildings.*
C. H. CLARK, M. D., *Third Assistant Physician, in charge of Female Department.*
B. R. LOGIE, M. D., *Fourth Assistant Physician, in charge of Toner Building.*
I. W. BLACKBURN, M. D., *Pathologist.*
J. E. TONER, M. D., *Night Medical Supervisor.*
GEORGE W. SCHWINN, M. D., *First Junior Assistant Physician.*
HARRY R. HUMMER, M. D., *Second Junior Assistant Physician.*
CORNELIUS DEWEESE, M. D., *Clinical Assistant to Pathologist.*
JOHN M. PULLIAM, M. D., *Medical Interne.*
ORREVILLE G. BROWN, M. D., *Medical Interne.*
A. D. WRAKLEY, D. D. S., *Dentist.*

SPECIAL OFFICERS.

A. E. OFFUTT, *Purchasing Agent.*
LELIA PIZZINI, *Chief of Training School.*

¹ Rev. Byron Sunderland, D. D., died June 30, 1901.

² Rev. M. P. Sullivan, died April 19, 1901.



REPORT

OF

THE BOARD OF VISITORS.

DEPARTMENT OF THE INTERIOR,
 GOVERNMENT HOSPITAL FOR THE INSANE,
 Washington, D. C., October 1, 1901.

SIR: The Board of Vistors of the Government Hospital for the Insane respectfully submit, as required by law, this, the forty-sixth annual report.

Following the custom of recent years, the report will include a statement of the principal events in the history of the hospital up to October 1, the date of its presentation.

The following tables give a synopsis of the movement of population and results of treatment during the year.

Summary.

	Males.	Females.	Total.
Remaining June 30, 1900	1,599	477	2,076
Admitted during the year ending June 30, 1901.....	519	136	655
Whole number under treatment	2,118	613	2,731
Discharged:			
Recovered.....	202	33	235
Improved.....	52	25	77
Unimproved.....	11	6	17
Died.....	193	33	226
Total discharged and died	458	97	555
Remaining June 30, 1901	1,660	516	2,176

Admissions and discharges.

	Males.		Females.		Total.	
REMAINING JUNE 30, 1900.						
Army	White	782	1	1	807	808
	Colored.....	25				
Navy.....	White	121	2	2	123	123
	Colored.....	2				
Marine-Hospital Service	White	22	5	5	27	27
	Colored.....	5				
Civil life.....	White	457	313	163	642	642
	Colored.....	185				
		1,599		477		2,076

Admissions and discharges—Continued.

		Males.		Females.		Total.	
ADMITTED DURING THE YEAR 1900-1901.							
Army	{White ...	275	292				292
	{Colored..	17					
Navy	{White ...	34	39				39
	{Colored..	5					
Marine-Hospital Service	{White ...	6	7				7
	{Colored..	1					
Civil life	{White ...	128	181	80	136		317
	{Colored..	53		56			
			519				655
UNDER TREATMENT DURING THE YEAR.							
Army	{White ...	1,057	1,099	1			1,100
	{Colored..	42					
Navy	{White ...	155	162		1		162
	{Colored..	7					
Marine-Hospital Service	{White ...	28	34				34
	{Colored..	6					
Civil life	{White ...	585	823	393	612		1,435
	{Colored..	238		219			
			2,118				2,731
DISCHARGED DURING THE YEAR—RECOVERED.							
Army	{White ...	108	116				116
	{Colored..	8					
Navy	{White ...	18	20				20
	{Colored..	2					
Marine-Hospital Service	{White ...	1	1				1
	{Colored..						
Civil life	{White ...	50	65	20	33		98
	{Colored..	15		13			
			202				235
DISCHARGED DURING THE YEAR—IMPROVED.							
Army	{White ...	18	18				18
	{Colored..						
Navy	{White ...	8	8				8
	{Colored..						
Marine-Hospital Service	{White ...						
	{Colored..						
Civil life	{White ...	19	26	17	25		51
	{Colored..	7		8			
			52				77
DISCHARGED DURING THE YEAR—UNIMPROVED.							
Civil life	{White ...	9	11	5	6		17
	{Colored..	2		1			
			11				17
DECEASED DURING THE YEAR.							
Army	{White ...	113	119				119
	{Colored..	6					
Navy	{White ...	11	11				11
	{Colored..						
Marine-Hospital Service	{White ...	1	2				2
	{Colored..	1					
Civil life	{White ...	38	61	16	33		94
	{Colored..	23		17			
			193				226

Admissions and discharges—Continued.

		Males.		Females.		Total.	
REMAINING JUNE 30, 1901.							
Army	{White	818	846	1	1	847	
	{Colored..	28					
Navy.....	{White	118	123			123	
	{Colored..	5					
Marine-Hospital Service.....	{White	26	31			31	
	{Colored..	5					
Civil life	{White	469	660	335	180	515	1,175
	{Colored..	191					
			1,600		516	1,175	2,176

1893-94	273	44	361	49	18	62	49	16	65	6	.....	6	138	29	167	1,277	404	1,681	248,163	869	911	618,072	24	22	41	20	66	11	31	7	84	10	82	9	09	6	27	8	42			
1894-95	288	78	371	68	30	96	40	32	72	1	.....	1	143	36	179	1,318	384	1,702	290,913	886	161	667,072	96	80	61	28	00	11	16	9	32	10	78	9	10	7	46	8	72			
1895-96	278	92	370	74	16	89	39	14	58	7	1	1	8	146	41	187	1,330	408	1,751	290,083	79	251	669,837	81	21	12	26	40	11	31	10	81	11	20	9	14	8	61	9	02		
1896-97	288	88	377	67	17	84	50	44	94	5	5	6	130	32	162	1,367	400	1,767	328,083	82	1,708	902	58	18	27	24	34	9	80	8	33	9	47	8	02	6	49	7	67		
1897-98	347	90	437	64	12	96	30	19	49	8	1	1	9	167	30	197	1,425	428	1,853	338,254	09	75	1,708	00	29	06	19	55	27	35	12	03	7	32	10	96	9	74	6	12	8	94
1898-99	498	105	608	173	16	189	59	29	88	88	10	48	108	35	193	1,496	443	1,939	438,353	51	1,871	84	40	42	17	77	36	48	10	89	8	07	10	31	8	21	7	87	5	71	7	89
1899-1900	494	117	561	118	38	151	52	13	66	8	6	13	102	32	184	1,599	472	2,070	504,004	44	1,948	54	85	75	89	75	89	75	36	56	10	10	7	19	9	44	7	87	5	71	7	89
1900-1901	519	136	655	202	33	235	52	25	77	11	6	17	198	33	228	1,660	516	2,176	568,383	483	382	666	66	44	10	34	02	42	84	12	19	6	88	10	98	9	11	6	88	8	27	

GENERAL RESULTS.

The number of patients remaining in hospital at the close of the year is just 100 greater than were present at the close of the year previous. The admissions for the year number 655, which is a considerably larger number than have been admitted in any previous year. As compared with the preceding years the proportion of those remaining who were received from the Army, Navy, and Marine-Hospital Service, is slightly reduced from 46.14 per cent to 46 per cent.

The percentage of recoveries was 42.34 of the total discharges and deaths. This is higher than for any year of the past decade, the highest percentage during that period being 36.56 for the year 1898-99. This increase is doubtless in large part to be attributed to the larger number of admissions of young men in whom the disease existed in more favorable form. The deaths were 10.93 per cent of the average number resident during the year. This is slightly above the average for the past ten years, this being 10.44 per cent.

The proportion of colored has slightly increased from 18.6 per cent at the beginning of the year to 18.84 per cent at the close. The proportion of women has also slightly increased from 23 per cent to 23.75 per cent of the whole population.

IN MEMORIAM.

Again are this Board and all friends of the hospital called to mourn the passing away of one by whom the institution was dearly beloved.

On the last day of the fiscal year, June 30, 1901, the venerable and highly esteemed president of this Board, Rev. Byron Sunderland, D. D., at the home of his daughter, at Catskill, N. Y., quietly and without a moment's warning passed through the gates to his reward in the holy city.

The work and personality of Dr. Sunderland are too well known in this community, where he spent more than half a century, and where he was so conspicuous a figure during the stirring period of his greatest activity, to require any record here, but we can not but give expression to our admiration of the many rugged and sterling qualities of heart and mind which he possessed. He was a member of this Board for sixteen years, and for five years its president. He was respected and much beloved by all its members. He had always an active interest in the work of the hospital and was its steadfast friend. Faithful to his convictions and out-spoken and straightforward in his expression of them, he made a strong impression on all those with whom he was associated during the active period of his work, and although living to the ripe age of 82 years, he retained to the last much of his vigor of body and a clear and active mind. It was a pleasure to be associated with him, and his absence from our meetings will long be a keen regret, but with much of its poignancy removed by the reflection that his work was well rounded out, that he "fought the good fight" to the end, and that he has surely entered into his eternal reward.

We are also compelled to record the death of Rev. M. P. Sullivan, one of the chaplains to the hospital, which occurred on April 19, 1901.

He had been a faithful and popular chaplain for several years, conspicuous for the conscientious discharge of his duties and his loyalty to his convictions.

HOSPITAL ADMINISTRATION.

The affairs of the hospital have continued satisfactory during the year. Both in the care and treatment of the patients and in the physical improvement of most of the departments of the institution we believe there has been substantial progress.

The work of the training school and the systematic development of practical nursing in all the hospital wards has had a noticeable effect in stimulating the physicians and nurses to greater efforts in providing for the patients the best that their opportunities afforded. A class of twenty-six nurses was graduated at the expiration of a course of two years of about eight months each, on May 31 of this year. Twelve of the female nurses are now employed in the male hospital wards and their work has been in most instances eminently satisfactory. The experiment is unquestionably successful and the medical staff are a unit in commending it and in advising its extension. It is especially in the care of the feeble, sick, and the acute mental cases, that its advantages are most noticeable. Complaints of neglect and harsh treatment have been unusually infrequent.

In three or four instances nurses have been detailed to care for private patients outside of the hospital, and in every case have acquitted themselves with credit.

The work of the school will be still further developed and systematized during the coming year. We regret the loss of the chief of the school, Miss Lelia Pizzini, who resigned August 26, 1901. Her place has been filled by promoting Miss Katherine Kramer, the head nurse in the female department, and it is confidently expected that her several years' experience in the hospital, and her marked success in directing the work of nursing in her department, will enable her to carry forward the work of the school without interruption and with continued good results.

The pathological department has been enlarged by the purchase of a bacteriological equipment, and Dr. Cornelius Deweese, for several years pathologist at the Maryland Hospital for the Insane, has been employed as assistant to the pathologist, for the more especial object of developing the clinical work of the department. Blood examinations for malaria and typhoid fever are required in every suspected case. Urine analysis is made in every case admitted, and preparations are under way to begin a study of stomach digestion and the effects upon it of the administration of various remedies, including hypnotics. Every case of tuberculosis is isolated as soon as possible, and opportunities for infection of other patients carefully guarded against. Attention is called to the report of the pathologist in the appendix of this report. It is confidently believed that the careful and conscientious work of Dr. Blackburn will be found of interest to neurologists and alienists, to whom it is respectfully commended. The doctor's experience and his careful study of brain tumors have made him a valuable authority on this interesting subject.

STORE BUILDING AND REFRIGERATING PLANT.

The store building which was begun at the date of the last report is now complete and occupied. While none too large, it is believed the supplies of the hospital can be accommodated in it for many years to

come. The upper floor is occupied by a storeroom for dry goods and clothing in the center and sewing room and tailor shop at the ends. The latter rooms are about 40 feet square, well-lighted, and comfortable. Sixteen sewing machines are operated by electric motors, eight machines attached to a common table and to one motor.

On the next floor below, the main floor of the storeroom, is the main disbursing room and the office for the bookkeepers. This room connects directly with the kitchen by a corridor. Divided from the main room by a brick wall are the butcher shop and three of the main cold-storage rooms, one for fresh meats, one for milk and butter, and one for fresh fruits, cooked vegetables, desserts, meats, etc. On the ground floor are located in the storeroom the heavy groceries and disbursing rooms for ward supplies, queensware, etc.

The same division of the cold-storage rooms, from the storeroom proper, is made on this floor as on the floor above. There are three, one for storage of ice, one for fresh vegetables, and one for salt meats and fish. The brine tank for the manufacture of ice and the refrigeration of the six storage rooms is also on this floor, and contains one hundred and sixty 100-pound cans. It has a capacity of about 5 tons of ice per day, besides refrigerating the six rooms to the proper temperature.

In the basement are located two 10-ton Remington ammonia pumps and engines, manufactured by the Remington Machine Company, of Wilmington, Del. They are thus far operating very satisfactorily and seem to do the work required of them with ease. A satisfactory test, however, can not be made before another midsummer.

An electric elevator of 2,000 pounds capacity runs from the basement to the upper story, and a hydraulic lift takes the fresh meats and milk and butter from the delivery platform to the cold-storage rooms on the floor above.

NEW WATERWORKS.

The contracts for the various portions of the new waterworks, noted in the last report, have been completed, and the entire system is in operation. Six additional wells, three 8-inch and three 6-inch, have been drilled to an average depth of about 225 feet. These are all connected by a common discharge pipe to a reservoir adjoining the pump room, holding about 120,000 gallons. The water is raised from the wells by compressed air, two air compressors, made by the Ingersoll-Sergeant Drill Co., being placed in the pump room. Each compressor has a capacity sufficient to pump twelve wells with the conditions as described.

From the reservoir the water is pumped to the tank in the water tower at the hospital by two compound duplex pumps of the D'Auria patent, each capable of pumping 1,000,000 gallons in 24 hours. They appear capable of doing the work with ease and are remarkable for the small amount of steam consumed. The pumps are also connected to the river by a 12-inch suction pipe for use in case of fire. The pumping machinery, including pumps, compressors, and water heaters, are located in an addition to the power house on the west, a room 43 feet by 25 feet in size, for the construction of which a contract was made with Joseph Hurdle, of this city, for the sum of \$2,004.68.

The main supply pipe from the pumps to the water tower starts as a 12-inch, and after a few hundred feet reduces to a 10-inch until it reaches

the hospital, where 6-inch branches for fire purposes are taken off and pass east and west to the extreme ends of the main building and with radiating lines to all of the detached buildings. Thirty-five hydrants, each with double hose connections, are placed around and among the buildings. The main supply line then continues as an 8-inch to the water tank in the tower, giving off lines for fire hydrants in the rear of the main building. The tank has a capacity of about 60,000 gallons and stands on a steel trestle 80 feet from the ground. The pressure with the tank half full is about 50 pounds at the ground level, which is sufficient to throw water over any of the buildings. Hose carts with 150 to 200 feet of hose on each will be located at convenient points about the building and grounds. By closing a valve at the foot of the tower the pressure can be increased by simply opening the steam valve to the pump. It is also proposed to place chemical extinguishers in the wards and rooms of the hospital, so that each part may have them within easy access. Altogether we believe the precautions taken to prevent the extension of fire and to furnish means for its prompt extinction are as complete as the conditions here will permit.

Rules for the guidance of officers and employees in the case of fire are being prepared, and a fire drill will be one of the regular duties.

RAILROAD SWITCH.

A railroad switch about 4,400 feet long, extending from the Alexandria branch of the Baltimore and Ohio Railroad to the boiler house of the hospital, and with two sidings, each about 500 feet in length, has been completed after considerable difficulty experienced by the contractor, Mr. John Jacoby, of this city, from slides at three or four points. These were due to the very heavy rains of the past spring and summer and the treacherous character of the material of which some of the fills were made. The total cost is about \$22,000. A trestle has also been constructed at the power house for dumping coal cars.

A locomotive has been bought from Adams, Low & Co., of Pittsburg, Pa., for \$1,950. The charge of the railroad being 20 cents per ton for delivering freight in car lots up the switch, it is believed to be more economical and much more convenient for the hospital to have its own engine. It will also be very valuable in the delivery of material for the extension of the hospital now under contract.

A set of track scales for weighing cars has been placed on the siding near the pump house and will add much to the convenience of handling coal and other supplies.

NEW KITCHEN.

The kitchen for the group of detached buildings, which was also begun at the time of the last report, has been completed and is ready for occupancy. Considerable delay has been experienced in getting the kitchen apparatus, for which an appropriation of \$3,000 was made by Congress at its last session, but it is all now in place. The steam and water connections are about completed. The kitchen is immediately adjoining the general dining room for this group, and it is hoped that great advantage will result from the better facilities for cooking and distributing food.

LAUNDRY APPARATUS.

Four large washers, 1 sterilizer, 1 centrifugal extractor, 1 body ironer, and 1 hand ironer have been added to the laundry equipment with the appropriation of \$3,000 made by Congress for this purpose. The laundry is now well supplied with apparatus to handle the large amount of clothing which must pass through it each week. Not less than 45,000 pieces are washed weekly, and 50 employees are required to handle it.

ROADWAYS.

With the appropriation made for roadways, grading, etc., for the extension of the hospital, a roadway is being constructed from the railroad siding at the boiler house to the site of the buildings of the extension. This road passes by the store building and will also be used to deliver supplies to the entire hospital. It will have a grade not to exceed 5 per cent and will be macadamized over the entire length except about the store building, where asphalt block paving will be used. In connection with this improvement the entire side hill near the workshops has been graded and cleaned of rubbish and will be sowed in grass. The appearance of this portion of the ground is much improved by the change.

A large amount of drain tile has been put in place about the rear of the hospital for the drainage of the courts about the domestic buildings, the groups of detached buildings, and the site of the proposed extension.

DAIRY.

The dairy is being gradually renewed, and by next spring it is confidently expected that the entire amount of milk required by the hospital will be furnished. As mentioned in the last report, the old herd of cows was found to be extensively infected with tuberculosis. The tuberculin test disclosed not less than 70 per cent of infected animals. These have all been slaughtered under the supervision of the officials of the pathological division of the Bureau of Animal Industry of the Department of Agriculture. A large number of fresh cows have been purchased during the year. The supply of milk is now something more than 200 gallons daily. The number will still be increased until the entire quantity, from 325 to 350 gallons daily, is produced.

In the renovation of the dairy barn a large amount of labor has been expended. The floors, including girders and joists, have been renewed and the feed troughs partitioned, so that no one cow can contaminate another through this channel. A silo, holding almost 200 tons of ensilage, has been constructed and filled for winter feeding. If it is successful another will be added during the coming year. Much thought has been given to the determination of the best method of utilizing the farm lands of the hospital, and particularly the farm of 400 acres near Alexandria. It is so far removed from the hospital that the transportation of farm products from it has been so expensive as to make its utility for ordinary farm operations questionable. It is believed that all of the lands not required for gardening can be made most remunerative by adapting them to the uses of the dairy, and it is proposed during the coming year to utilize the Alexandria farm as a summer dairy. A succession of crops, comprising rye, wheat, oats, sowed

corn, and field peas, will be sowed there, sufficient to sustain the entire dairy during the months when they can be fed directly from the field. There will also be a considerable amount of pasturage available. The entire herd of cows will be removed to that farm about May 1, and milking sheds and quarters for the dairy employees provided. The dairy can be maintained there until about November 1, when the cows will be returned to the home farm. On the home farm are commodious and comfortable barns for winter use, and the land of this farm will be used to provide the greater part of the vegetables for the hospital and the green food to fill the silos for winter feeding. In this manner it is hoped to reduce the hauling to the minimum and to best economize all the farm operations.

NEW STABLE.

At its last session Congress made an appropriation of \$25,000 for a stable. Plans were prepared for one capable of accommodating 60 horses and mules and with abundant room for carriages and farm wagons and carts. In August of this year a contract was made, after inviting bids, with Messrs. Meads & Reynolds, of this city, for its construction. Work has been begun, and the building is to be completed within six months.

The stable has been located on the east side of Nichols avenue, near the dairy barns, facing the avenue. When it is in operation the old stable will be removed and its site made into a lawn, adding greatly to the attractiveness and healthfulness of the rear court about the domestic buildings of the hospital.

ELECTRIC MACHINERY.

Under the authorization of the appropriation of \$10,000 for additional electric machinery, made by Congress at its session in 1900, a contract was made with the Thresher Electric Company, of Dayton, Ohio, for a 300-horsepower engine and dynamo, and the apparatus is now installed and in successful operation. A like appropriation, made for the further renewal of the electric machinery, by Congress at its last session will be expended during the coming season in replacing the two smaller machines with modern apparatus.

NEW BOILERS.

The increasing demands of the hospital, and particularly the preparations required for the construction of the new buildings of the extension, have made additional boiler capacity a necessity. It is also believed to be advisable to concentrate the boiler plant required at the site of the hospital, for both heating and power, at the main boiler house, where the coal supply can be more economically handled. To this end two 150-horsepower tubular boilers have been purchased of the Keeler Company, of Williamsport, Pa., and will be put in place this fall. With these the hospital will be well equipped in this respect for its present demands. The extension proper, however, will require a large addition to both the heating and lighting plant, as described later in this report.

The piping of the heating apparatus of the old parts of the hospital

and the means of ventilation will require a complete renewal and rearrangement in the near future, and this should be done when the equipment for the extension is put in place.

At the power plant at the river, where the lighting and pumping machinery is now located, two 100-horsepower boilers, which were purchased during the preceding year, have been put in place, giving 400 horsepower of boiler capacity at this point. The changes in the piping for the new pumping and lighting machinery have required a large amount of material and labor. The latter has been furnished by the mechanics of the hospital, and the work is highly creditable to the chief engineer and his assistants.

LAVATORY EXTENSIONS.

During the year the bathrooms, lavatories, and water-closets of fourteen wards of the old building have been made fireproof and refitted with modern apparatus. The work has been tedious and laborious, but is now completed and all are in use. A shower-bath apparatus and a roll-rim enameled tub are supplied to each ward. All the apparatus of the lavatories and closets is enameled iron with nickel-plated trimmings. It is of the most modern design and equal to the equipment of any modern hospital of this character. Two sections, of three wards each, yet remain to be renewed in the old building, and the work will be begun as soon as opportunity will permit.

HOSPITAL EXTENSION.

The Board of Visitors is especially grateful to Congress for its generous contribution toward remedying the overcrowded condition of the hospital. This overcrowding has been for many years a serious inconvenience and menace to the welfare of the inmates, and it has been steadily growing. Every available nook has been utilized, both for patients and employees, and now a number of the wards contain more than double the number of patients that they should accommodate. Some have as many sleeping on the floor in the day corridors as should be in the entire ward. For these reasons we appreciate most highly the action of Congress in placing at the disposal of your Department and the hospital the funds necessary to correct this evil. It is not necessary for us to recount to you the several steps that have been taken in carrying out the provisions of the act authorizing the extension. As members of the Board, we regret that it was not deemed advisable by Congress to purchase the tract of land which we believed especially adapted for a location for the new buildings, but we cheerfully accept the decision and will strive as best may be to adapt the present grounds of the hospital to the purpose.

The exchange of land which was authorized by Congress has likewise been found impracticable on any terms believed by the Department to be equitable. This failure has not been permitted to retard the work of construction, however, and we are glad to say that, after several unavoidable delays, this is now commenced. A contract has been authorized and executed, as you know, with Messrs. Horton and Hemenway, of Providence, R. I., for the construction of twelve buildings. The two principal of these are the two hospital buildings proper, each of which will accommodate 104 to 120 patients. They are arranged

especially for the care of acute and special patients whose mental and physical condition require individualized and special treatment. Each building will have an operating room for surgical cases, and, in connection with these, accommodations for the classes of nurses and students who are receiving training or instruction in the hospital. One of the hospitals will be for males and the other for females. Two buildings will be for disturbed and destructive cases, one for each sex, and each accommodating 120 patients. Another building, accommodating about 104 patients, is designed for the especially untidy and demented classes of males. These buildings are each subdivided so that no one ward will have more than 30 patients in it, thus affording abundant opportunity for classification and control of these particularly troublesome cases. The day rooms are separated entirely from the sleeping apartments, and the latter are so arranged as to permit the most thorough night supervision.

In addition to these buildings there will be six smaller ones, called cottages, each accommodating from 40 to 60 patients. Two will be for the more tidy and quiet classes of epileptics, and four for the better cases among the more chronic classes. All the buildings for patients will be two stories in height, and the six cottages will have all day rooms on the first floor and all sleeping rooms on the second. Each building will have its own dining room and the hospital buildings will be supplied from a special-diet kitchen.

There will be one building for nurses and attendants, including night nurses, accommodating one hundred. It is proposed at present to locate, on the present building site of the hospital, near its southeast corner and near the Toner Building group, eight of these buildings, including the two hospital buildings and the building for employees, and to place the remaining four buildings on the east side of Nichols avenue, directly opposite them and about 300 feet from the avenue. The latter buildings will be used for the accommodation of male patients only, the disturbed, destructive, and untidy classes being provided for in two of the buildings, and the two cottages being used for the farm laborers among the patients. The former classes will be the least affected by the comparatively unattractive location, and the latter will be near their work and less inconvenienced by the location than any other class would be. The buildings on the present site, west of the avenue, with the exception of the male hospital, will constitute, with the Toner Building and the Oaks buildings, the female department of the institution. It will provide accommodations for about 600 patients, and this will suffice for the wants of this department for a number of years to come. The building for disturbed females will be located apart from the others and where this class will give the least annoyance possible. The entire group will be so separated from the rest of the institution that the patients can be given outdoor exercise with greater freedom and with less annoyance to themselves and others.

Although the buildings will be more crowded than we desire, and although the site does not afford the facilities for exercise and quiet seclusion that the original site proposed would have given, it will be a great advance over the present arrangement. It is hoped that the entire extension can be completed within two years.

We also desire respectfully to call your attention to the necessity for amending the law giving the Commissioner of Pensions authority

to order the payment of pensions to the hospital for the support of the pensioners in the case of soldiers admitted from the National Homes for Disabled Volunteer Soldiers, who are pensioners, and who have no dependent relatives as described in the law. The law as it now stands requires the entire pension to be paid to the hospital in every such case, together with all arrears of pensions, without regard to the amount. The regular rate of board for pay patients has been fixed by this board for many years at \$5 per week, and many of these pensions amount to more than the sum named. To take all of the pension allowed the soldier, for a service for which the regular charge is less than the pension, would seem to be manifestly unjust. Further, the law does not permit any special use of the pension so paid to the hospital for the soldier's individual benefit, as it is expressly provided that it shall be paid into the support account of the hospital. It would seem, too, that even in cases where the pension of the soldier does not amount to the regular rate of board it is scarcely just to take from him the entire amount, leaving him nothing for such incidental and individual expenses as the rules will not permit to be paid from the hospital funds.

This board, with the superintendent, is also much interested in securing some additional legislation regulating the commitment and discharge of patients admitted to the hospital from the District of Columbia. Particularly is this true as relates to the authority to discharge patients from the hospital. The law as it stands has not been changed in this respect since the hospital was organized, forty-six years ago, and contemplates the release of patients only when they can be discharged as cured. The fact, however, is that in the practical operation of such a hospital it is often advisable to give a patient a trial visit outside of the hospital before final discharge, and in still other cases, where further hospital treatment can be of no advantage and where patients are entirely harmless, authority should be given to release them to the care of their friends.

REQUIREMENTS FOR THE FISCAL YEAR 1902-3.

For the support, clothing, and treatment in the Government Hospital for the Insane, of the insane from the Army and Navy, Marine Corps, Revenue-Cutter Service, inmates of the National Homes for Disabled Volunteer Soldiers, persons charged with or convicted of crimes against the United States, who are insane, all persons who have become insane since their entry into the military and naval service of the United States who have been admitted to the hospital and who are indigent, and for the indigent insane admitted from the District of Columbia, \$495,000.

Attention is called to the basis upon which this amount is estimated. The daily average number of patients in the hospital for the year ending June 30, 1900, was 1,948. The daily average for the year ending June 30, 1901, was 2,066, an increase of 118. Taking into consideration the number of patients in hospital at the commencement of the current fiscal year (2,176), the daily average, estimated at the time of the submission of the last annual report, for this year, viz, 2,200, will probably be well within the number.

Assuming that the increase for the year ending June 30, 1903, will equal that of last year and the present year, the daily average number

for that year will probably be approximately 2,300. Estimating the sum required for support on the usual basis of \$220 per capita, the total amount of \$506,000 would be required. It is believed by the superintendent, however, that the estimate can be somewhat reduced by making it on the basis of an average number of 2,250 patients, which will reduce the amount to \$495,000, which amount is made the basis of the above estimate.

The apportionment of this sum between the sundry civil appropriation bill and the appropriation bill for the District of Columbia is determined as follows: The daily average number of patients present in the hospital during the year ending June 30, 1900, who were bona fide residents of the District of Columbia was 845. The daily average of the same for the year ending June 30, 1901, was 906. These numbers omit all transient or nonresident patients and include only the indigent insane who claim the District of Columbia as a residence. Assuming that the ratio of increase will be the same for the patients from the District of Columbia as for the entire hospital population, the daily average of District indigent patients for the year ending June 30, 1902, will be 967, and for the year ending June 30, 1903, 1,028. The ratio which 1,028 bears to 2,300 is the basis adopted in the above estimate. This, as we believe, is the correct basis on which the apportionment should be made, and indicates the correct amount that should be included in the District appropriation bill. The balance to be included in the sundry civil bill is therefore \$279,780, as suggested in the accompanying estimate.

It will be observed that this basis differs from that used in previous years, but in our opinion is as equitable as can be established under the circumstances. It increases the amount apportioned to the district bill, but is in just proportion to the number of indigent residents of the District among the patients. One-half only of this sum, as you know, comes from the revenues of the District. Neither does the District pay any part of the expense of keeping the buildings and grounds in repair or of providing new buildings or equipment.

Total amount to be included in District bill	\$215, 220
Total amount to be included in sundry civil bill	279, 780
For general repairs and improvements	25, 000

The necessity for repairs is constantly increasing with the lapse of years, and as the number of buildings increases and the sum of \$25,000, which is the amount which has been appropriated for the purpose for the last two years, will be necessary.

For brick tower to inclose steel water tower and trestle	\$15, 000
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The new steel water tower and trestle should be inclosed in a brick tower for its protection and to prevent patients from obtaining access to it. This tower must be 24 feet square at its base and about 112 feet in height. It is proposed to build it of red brick, with stone trimmings. It is a conspicuous object on the grounds of the hospital, and should correspond in style of architecture with the buildings of the extension, adjoining which it will stand. A careful estimate of the amount necessary, on the basis of the present prices, is \$15,000.

For gas-making machine	\$2, 500
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The old gas house and retorts are entirely beyond use and must be removed during the coming year. The gas will still be required for

the ironing machines in the laundry, and it is proposed to purchase a gas-making machine which can be located in a small addition to the laundry building.

For office and administration building	\$145,000
For central heating and lighting plant for entire hospital	150,000
For enlarging kitchen of Toner group of buildings	20,000

At the time, two years ago this fall, when the estimates for the proposed extension to the hospital were presented, prices of building material, and of labor, were such as to fully justify the belief that there could be included in the plans for the provision of accommodation for 1,000 patients and the necessary number of additional employees, the desired administration and office building, and a modern heating and lighting plant for the entire hospital. Since then there has been such a rapid and decided advance in prices as to increase the cost of construction at least one-third.

When the plans were finally prepared and bids invited, as provided by the appropriations of Congress at its last two sessions, these plans including a liberal allowance of accommodations for 1,000 patients and 200 employees, together with the heating, lighting, and plumbing complete, as far as comprised in these buildings, and also including the building desired for administration and office purposes, it was found that the bids received largely exceeded the appropriations made. The pressing needs of the hospital for additional room demanded that if possible there should be no further delay in commencing the work of construction. The conditions of the appropriation required that the buildings should be fireproof and adapted to the needs of the special classes of the acute insane. Under these conditions an effort was made to eliminate such buildings as it was believed could be omitted without conflicting with the requirements of the law. Of the remaining buildings, which were considered absolutely essential, there remained 12. The specifications for these were carefully examined and such changes suggested as it was thought could be made without seriously impairing their safety or efficiency. The first appropriation of \$50,000 was reserved for payment of architects' fees, printing, advertising, and certain incidental expenses relating to the preparations for the work of construction. Of the appropriation of \$925,000 by Congress at its last session, \$15,000 was reserved for the expense of superintendence and such incidentals as related thereto, and the limit of \$910,000 fixed as the sum available for the contract. By omitting the buildings referred to, and by making all the changes deemed advisable in the buildings remaining, the bid of the lowest bidder was brought to this limit and contract recommended by the committee to whom the bids had been referred for examination and report. This contract has been made and the contractors are just now beginning active work. Their contract includes all the necessary buildings for accommodating 1,000 patients of all the special classes and 100 employees. The buildings are complete, including heating apparatus, lighting, ventilation, and plumbing. They are to be fireproof, modern in every respect, and include all the requirements for the most enlightened care and treatment of these classes of insane. They also include dining rooms, serving rooms, operating rooms, and all the domestic rooms necessary. It was not found possible, however, to include the administration and office building, which should be a part of the modern hospital of this character and which is, for the efficient management of this one, an

imperative necessity, nor the enlargement and remodeling of the central heating, power, and lighting plant for the entire hospital. The present boiler house will not be sufficient for the needs of the institution as enlarged and reorganized, and it is not favorably situated for economic operation. To provide for these two requirements the sum mentioned in the estimates will, it is believed, be required. With 2,300 patients estimated as the number that the hospital must accommodate next year, and with an annual increase of at least 100, it is imperative that all possible haste be made to meet the demands, and while the sum ultimately required will exceed, by the sums mentioned, the first estimate, the Board of Visitors believe that all possible economy consistent with good and substantial construction has been exercised in laying out the work, and it is hoped that Congress will give the additional aid which the successful execution of the work will require. As a Board we are grateful for the generosity of which the hospital has been the recipient, and no effort will be spared to make the institution a worthy charity of a humane nation for a class of its citizens and wards, than whom there is none more deserving of its protection and helpful care.

A summary of the appropriations which we respectfully request for the hospital for the year 1902-3 is as follows:

For support, maintenance, etc., \$220 per annum for an average number of 2,250 patients	\$495, 000
For general repairs and improvements	25, 000
	520, 000

Buildings and grounds:

For office and administration building.....	145, 000
For central heating and lighting plant for entire hospital.....	150, 000
For enlarging kitchen of Toner group of buildings.....	20, 000
For brick tower to inclose steel water tower and trestle.....	15, 000
For gas-making machine.....	2, 500
	332, 500

To show the extent of the work which has been carried on during the year, we append a list of the contracts made on behalf of the hospital within the year:

For store building:

1900.

July 16. Brennan Construction Co.:		
Excavation.....	per cubic yard..	\$0. 60
Old brick cleaned and piled	per M..	2. 45
Concrete for foundations.....	per cubic yard..	5. 00
8-inch concrete floors	per square yard..	1. 75
2-inch granolithic floors	do.....	. 55
Composition roof covering	do.....	5. 50
Fireproofing, partitions, and plastering		3, 517. 48
July 16. C. A. Schneider's Sons: Structural iron work.....		5, 250. 00
July 27. W. T. Galliher & Bro.: Lumber and mill work.....		2, 240. 00
Aug. 16. Hugh Reilly: Glazing		135. 00
Aug. 22. Darius E. Burton: Hardware.....		505. 00
Aug. 31. Edgar J. Hulse: Sheet-metal work		275. 00
Sept. 7. Rudolph Jouvenal: Cut-stone work		1, 000. 00
Aug. 23. Warner Elevator Co.: One electric elevator and one hydraulic lift.....		3, 400. 00
For ice-making and refrigerating plant:		
Sept. 10. The Remington Machine Co.: One refrigerating plant, in place.		7, 760. 00
For remodeling five sections of toilet rooms:		
Aug. 30. The Brennan Construction Co.: Fireproofing and terrazo floors.		6, 532. 00

	For kitchen building:	
Aug. 14.	The Brennan Construction Co.: Excavation, concrete footings, concrete floors, base skirting, fireproof floors, terrazo floors, partitions, and plastering	\$2,371.00
	C. A. Schneider's Sons: Structural iron work	1,898.00
Aug. 15.	W. C. Huddleston & Co.: Slating	260.00
Aug. 22.	W. T. Galliher & Bro.: Lumber and mill work	796.00
Aug. 16.	Rudolph Jouvenal: Cut-stone work	123.00
	O. L. Wolfsteiner & Co.: Sheet-metal work	250.00
	For water works:	
June 16.	James Berrall: Superintendence, etc. ¹	
Aug. 21.	M. J. Drummond & Co.: Water pipe, fittings, hydrants, etc....	6,006.88
Aug. 31.	The Burdil Co.: Laying water pipe	1,726.75
	John Simmons & Co.: Wrought-iron drive pipe	1,383.39
Sept. 1.	W. E. De Witt: Drilling wells	2,342.23
	The Brennan Construction Co.: Foundation for water tower....	1,270.03
Oct. 30.	The North Penn Iron Co.: Steel water tower and tank	4,234.00
Jan. 4.	Joseph F. Hurdle: Pump house	1,970.00
	M. F. McNamara: Foundations for air compressors and granolithic floor	257.25
Sept. 25.	Henry G. Morriz: Two compound condensing duplex steam pumps, complete	8,750.00
	1901.	
June 12.	Ingersoll-Sergeant Drill Co.: Two air compressors, delivered....	2,664.00
	John Miller: Dredging for intake pipe	94.50
	F. G. Rogers: Crib for intake pipe	209.00
	E. G. Schafer & Sons: Piping for wells	811.59
	1900.	
July 25.	Charles White, jr.: Iron stairway for relief building	3,275.00
Aug. 9.	W. A. Vaughn: Remodeling roof of relief building	2,147.00
	Railroad switch:	
Oct. 31.	John Jacoby:	
	Main switch, complete	18,000.00
	Extra siding	1,554.00
	Electric machinery:	
Nov. 5.	Thresher Electric Co.: 300-horsepower engine and generators..	8,600.00
	1901.	
Apr. 8.	A. H. Thomas & Co.: Bacteriological and pathological supplies.	559.87
July 31.	Westinghouse Electric Co.: One 6-horsepower multipolar motor.	135.00
June 25.	L. E. Smoot:	
	Concrete sand, delivered	per cubic yard.. 1.05
	Gravel, delivered	do..... 1.35
July 23.	Adams, Low & Co.: One 30-ton locomotive	1,950.00
Apr. 15.	The Crocker-Wheeler Cp.: One 26-horsepower moderate-speed motor	441.00
Aug. 9.	The E. Keeler Co.: Two 150-horsepower tubular boilers, delivered on board cars hospital	2,196.00
Aug. 7.	M. F. McNamara:	
	Asphalt paving block	per cubic yard.. 2.50
	14-inch curb, 6-inch base	per lineal foot.. 1.00
July 24.	Thomas Somerville & Sons: Sewer pipe	1,103.92
July 3.	Empire Agricultural Works: One silo, complete	310.00
July 3.	Dow Wire Works: 92 window guards, delivered	135.70
July 19.	Wallace & Menchine: Pipe covering	125.00
	1900.	
Oct. 18.	Brennan Construction Co.: Granolithic floor and concrete pier (laundry building)	601.00
	1901.	
Apr. 9.	American Laundry Machinery Co.: Laundry machinery	2,500.00
	Fred B. Miller & Bro.: Railroad-track scales, 100-ton capacity.	644.00
	1900.	
Mar. 7.	Cincinnati Steel Range Co.: Kitchen outfit	2,136.86
	1901.	
Aug. 13.	Meads & Reynolds: Stable	24,796.00

F. M. GUNNELL, *President.*
A. B. RICHARDSON, *Secretary.*

To the SECRETARY OF THE INTERIOR.

¹ 5 per cent of cost.

Monthly changes of population.

Date.	Admitted.			Discharged.			Died.			Total discharges, including deaths.
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
1900.										
July.....	47	10	57	38	9	47	23	2	25	72
August.....	32	15	47	27	6	43	17	1	18	61
September.....	28	5	33	22	4	26	16	3	19	45
October.....	48	5	53	17	14	31	14	1	15	46
November.....	43	16	59	21	4	25	11	2	13	38
December.....	56	9	65	14	5	19	19	2	21	40
1901.										
January.....	52	12	64	32	4	36	19	8	27	63
February.....	22	12	34	21	2	23	14	2	16	49
March.....	54	9	63	23	5	28	11	3	14	42
April.....	28	14	42	24	7	31	18	3	21	52
May.....	34	15	49	14	2	16	17	2	19	35
June.....	75	14	89	12	2	14	16	4	20	34
Total.....	519	136	655	265	64	329	193	33	226	555

Cause of death.

Asphyxia ¹	1	Paresis with enteritis.....	1
Asphyxia from food in larynx.....	1	Paresis with pulmonary tuberculosis.....	1
Bulbar paralysis.....	1	Paresis with asphyxia from food in larynx.....	2
Colitis.....	4	Paresis with calculous nephritis.....	1
Convulsions, epileptic.....	2	Paresis with aortic aneurism.....	1
Convulsions, epileptiform.....	1	Pneumonia.....	4
Congestion of lungs.....	2	Pneumonia, hypostatic.....	4
Carcinoma.....	1	Pyelonephritis.....	4
Cystitis.....	2	Pulmonary tuberculosis.....	31
Cardiac atrophy.....	1	Pyothorax.....	1
Cardiac valvular disease.....	25	Pleuritis.....	1
Cerebral hemorrhage.....	9	Pleuritis, tubercular.....	1
Cirrhosis of liver.....	1	Peritonitis.....	1
Cerebral sclerosis.....	1	Pachymeningitis, hemorrhagic.....	5
Cholaemia from impacted gallstones.....	1	Pyemia from suppurative arthritis.....	1
Diarrhea.....	5	Proctitis, gangrenous.....	1
Exhaustion from acute mania.....	4	Rupture of spleen (accidental).....	1
Exhaustion from acute melancholia.....	2	Senectus.....	5
Exhaustion from chronic mania.....	2	Sarcoma of scalp with septicemia.....	1
Exhaustion from chorea magna.....	1	Strangulated hernia.....	1
Fever, typhoid.....	1	Thrombosis of cerebral arteries.....	3
Gangrene of foot.....	2	Thrombosis of coronary artery.....	1
Gangrene of lungs.....	1	Toxaemia, malarial.....	1
Gangrene of colon from internal strangulation.....	1	Toxaemia, malarial, with diarrhea.....	1
Interstitial nephritis.....	10	Tabes dorsalis.....	1
Interstitial myocarditis.....	1	Tumor of brain.....	1
La grippe.....	3	Uterine fibroid with uraemia from mechanical retention of urine.....	1
Leptomeningitis.....	1		
Organic disease of brain.....	43		
Paresis.....	19	Total.....	226

Duration of mental disease of those who died.

Seven days.....	2	Two months.....	5
Ten days.....	1	Three months.....	2
Five weeks.....	1	Four months.....	2
Six weeks.....	1	Five months.....	1
One month.....	1	Six months.....	1

¹ Suicide by hanging.

Duration of mental disease of those who died—Continued.

Seven months.....	2	Sixteen years.....	10
Eight months.....	4	Eighteen years.....	2
Nine months.....	2	Twenty years.....	1
Ten months.....	1	Twenty-one years.....	1
Eleven months.....	3	Twenty-two years.....	1
One year.....	30	Twenty-three years.....	1
Two years.....	33	Twenty-five years.....	1
Three years.....	15	Twenty-seven years.....	1
Four years.....	14	Thirty-one years.....	1
Five years.....	12	Thirty-three years.....	1
Six years.....	10	Thirty-four years.....	1
Seven years.....	6	Thirty-five years.....	4
Eight years.....	7	Thirty-seven years.....	1
Nine years.....	10	Forty years.....	3
Ten years.....	7	Forty-three years.....	1
Eleven years.....	3	Forty-seven years.....	1
Twelve years.....	2	Unknown.....	10
Thirteen years.....	4		
Fourteen years.....	1		
Fifteen years.....	2		
		Total.....	226

Duration of mental disease of those who recovered.

Between 10 and 20 days.....	2	Between 8 and 12 months.....	60
Between 20 and 30 days.....	4	Between 1 and 2 years.....	33
Between 1 and 2 months.....	16	Over 2 years.....	11
Between 2 and 3 months.....	11	Unknown.....	17
Between 3 and 4 months.....	27		
Between 5 and 6 months.....	54	Total.....	235

Duration of disease on admission.

		Males.		Females.			Total.
LESS THAN SIX MONTHS.							
Army.....	{White... {Colored..	139 11	150				150
Navy.....	{White... {Colored..	23 3		26				26
Marine-Hospital Service.....	{White... {Colored..	3 1	4			4	
Civil life.....	{White... {Colored..	54 24	78	30 29	59	59	137
			258				317
LESS THAN ONE YEAR.							
Army.....	{White... {Colored..	26 4	30				30
Navy.....	{White... {Colored..	2 1	3				3
Marine-Hospital Service.....	{White... {Colored..	1	1				1
Civil life.....	{White... {Colored..	15 6	21	5 1	6		27
			55			6	61
ONE OR TWO YEARS.							
Army.....	{White... {Colored..	68 1	69				69
Navy.....	{White... {Colored..	8 1	9				9
Marine-Hospital Service.....	{White... {Colored..	1 1	2				2
Civil life.....	{White... {Colored..	28 12	40	10 3	13		53
			120		13	18	133

Duration of disease on admission—Continued.

		Males.		Females.		Total.	
OVER TWO YEARS.							
Army	{White ...	6					
	{Colored..		6				6
Civil life	{White ...	3		2			
	{Colored..	2					7
			5		2		
				11			13
OVER THREE YEARS.							
Army	{White ...	7					
	{Colored..		7				7
Civil life	{White ...	6					
	{Colored..	1					7
			7				
				14			14
OVER FOUR YEARS.							
Army	{White ...	3					
	{Colored..		3				3
Civil life	{White ...	3		3			
	{Colored..		3	2			8
			3		5		
				6		5	11
FIVE TO TEN YEARS.							
Army	{White ...	9					
	{Colored..		9				9
Civil life	{White ...	4		3			
	{Colored..	1					8
			5		3		
				14		3	17
TEN TO TWENTY YEARS.							
Army	{White ...	4					
	{Colored..		4				4
Civil life	{White ...	8		2			
	{Colored..	1					11
			9		2		
				13		2	15
OVER TWENTY YEARS.							
Army	{White ...	2					
	{Colored..		2				2
Navy	{White ...	1					
	{Colored..		1				1
Civil life	{White ...	1		7			
	{Colored..	4		5			17
			5		12		
				8		12	20
UNKNOWN.							
Army	{White ...	11					
	{Colored..	1					12
			12				
Civil life	{White ...	6		18			
	{Colored..	2		15			41
			8		33		
				20		33	53
NOT INSANE.							
Civil life	{White ...			1			
	{Colored..			1			1
					1		

Summary of total admissions.

	Males.	Females.	Total.
Percentage of cases—			
Recovered.....	34.24	24.44	32.22
Improved.....	14.48	20.54	15.73
Unimproved.....	2.36	3.86	2.66
Died.....	32.81	31.21	32.09
Remaining.....	16.61	19.95	18.30
	100	100	100

Nativity, as far as could be ascertained, of the 12,581 cases treated.

Native born.	Number.	Foreign born.	Number.
District of Columbia.....	1,591	Ireland.....	1,957
New York.....	858	Germany.....	1,368
Maryland.....	974	England.....	284
Virginia.....	1,220	France.....	85
Pennsylvania.....	682	Canada.....	109
Ohio.....	444	Scotland.....	92
Massachusetts.....	281	Switzerland.....	57
Maine.....	115	Italy.....	57
Illinois.....	153	Denmark.....	37
Connecticut.....	95	Norway.....	44
New Hampshire.....	76	Sweden.....	62
Indiana.....	154	Poland.....	24
Kentucky.....	132	Prussia.....	22
Michigan.....	74	Panama.....	1
New Jersey.....	118	Russia.....	33
Tennessee.....	80	Austria.....	44
Wisconsin.....	55	Nova Scotia.....	18
Vermont.....	56	Spain.....	7
Missouri.....	78	Holland.....	15
Rhode Island.....	42	Wales.....	21
Delaware.....	28	Portugal.....	6
North Carolina.....	85	Hungary.....	11
Alabama.....	35	Mexico.....	11
South Carolina.....	35	Saxony.....	6
Iowa.....	24	Malta.....	3
Georgia.....	58	Buenos Ayres.....	3
Mississippi.....	39	Belgium.....	5
Louisiana.....	31	Brazil.....	1
West Virginia.....	46	Costa Rica.....	1
Kansas.....	23	Bavaria.....	14
Florida.....	12	Sicily.....	2
Texas.....	26	British Columbia.....	1
California.....	17	British Possessions.....	1
Arkansas.....	15	East Indies (British).....	6
Indian Territory.....	12	West Indies (British).....	10
Colorado.....	3	New Brunswick.....	3
Montana.....	1	Cuba.....	4
Oregon.....	3	China.....	1
Minnesota.....	12	Sandwich Islands.....	1
Dakota.....	6	Coast of Africa.....	2
Utah.....	1	Cyprus.....	1
Nebraska.....	5	Greece.....	4
Wyoming.....	2	Turkey.....	2
New Mexico.....	2	New Granada.....	1
		West Indies (Haiti).....	1
Total.....	7,770	Japan.....	3
		Newfoundland.....	1
		Bermuda.....	1
		Finland.....	5
		Alsace.....	1
		Roumania.....	3
		Armenia.....	2
		Prince Edward Island.....	2
		Bahama Islands.....	1
		Korea.....	1
		Bohemia.....	2
		Total.....	4,455

RECAPITULATION.

Native born.....	7,770
Foreign born.....	4,455
Unknown.....	356
Total.....	12,581

Form of disease in those admitted.

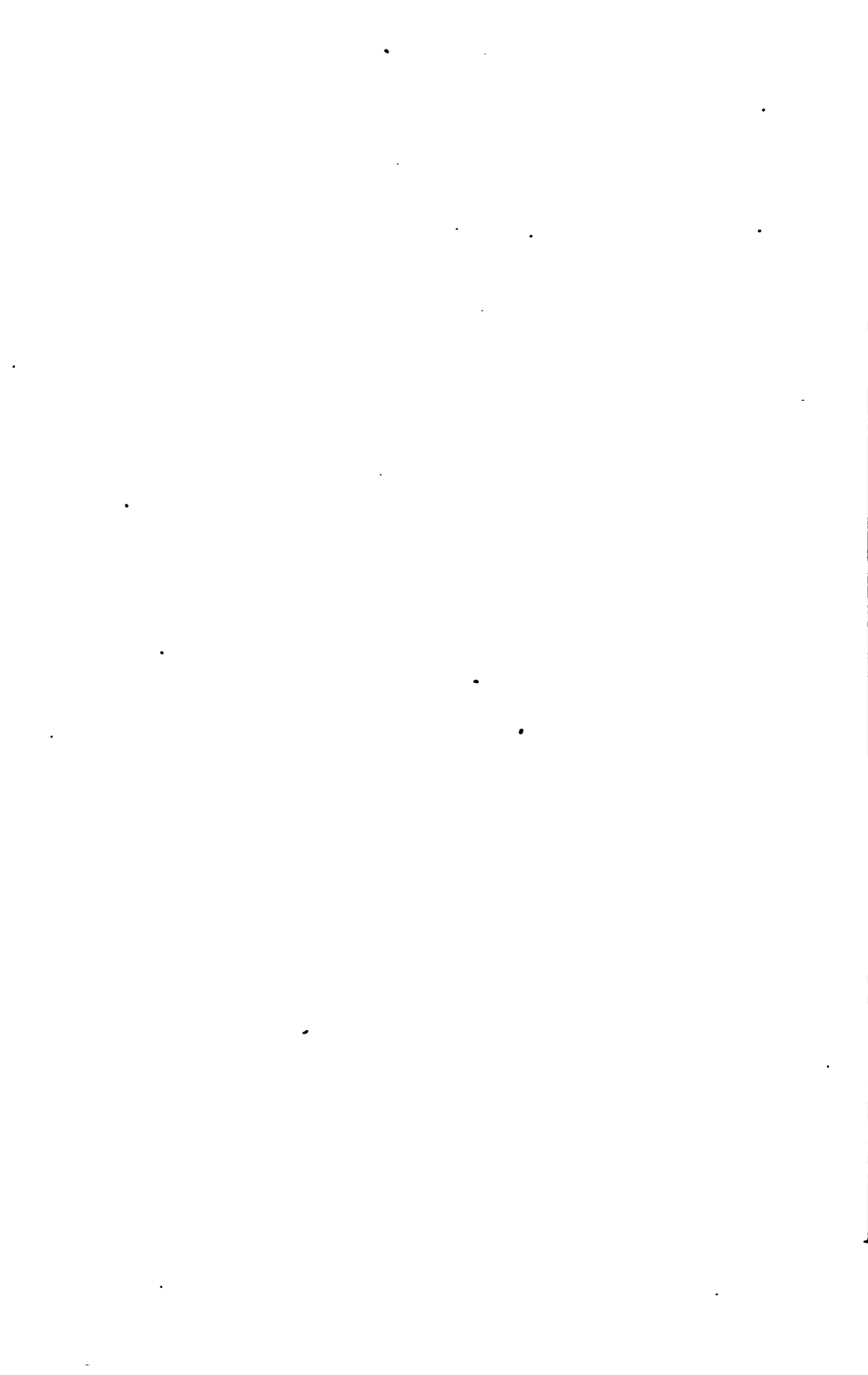
	Total past year.	Admitted during year.	Total.
Mania, acute.....	3,220	147	3,367
Mania, chronic.....	1,514	32	1,546
Melancholia.....	2,726	273	2,999
Dementia.....	2,724	99	3,823
Dementia, senile.....	511	47	558
Paresis.....	406	17	423
Dipsomania.....	475	.....	475
Imbecility.....	253	23	276
Opium eaters.....	23	.....	23
Chronic delusional insanity.....	2	9	11
Typhomania (Bell's disease).....	1	.....	1
Diffuse suppurative meningitis.....	4	.....	4
Kleptomania.....	4	1	5
Nymphomania.....	5	.....	5
Idiocy.....	25	2	27
Toxic insanity.....	3	.....	3
Primary delusional insanity.....	1	4	5
Uraemia.....	1	.....	1
Not insane.....	29	1	30
Total.....	11,926	655	12,581

Time of life at which the 12,581 cases treated since the opening of the institution became insane.

	Previous to 1900.	1901.	Total.
Under 10 years.....	335	27	362
Between 10 and 15 years.....	115	6	121
Between 15 and 20 years.....	588	20	608
Between 20 and 25 years.....	1,688	119	1,807
Between 25 and 30 years.....	1,851	98	1,949
Between 30 and 35 years.....	1,567	65	1,632
Between 35 and 40 years.....	1,224	45	1,269
Between 40 and 45 years.....	974	34	1,008
Between 45 and 50 years.....	852	36	888
Between 50 and 60 years.....	1,274	51	1,325
Between 60 and 70 years.....	813	64	877
Between 70 and 80 years.....	351	40	391
Between 80 and 90 years.....	51	3	54
Over 90 years.....	3	.....	3
Unknown.....	211	43	254
Not insane.....	29	1	30
Total.....	11,926	655	12,581

History of the annual admissions since the opening of the hospital, with discharges and deaths, and number for each year remaining June 30, 1901.

Year.	Admitted.			Of each year's admissions discharged and died in 1901.						Total discharged and died of each year's admissions.						Remaining of each year's admissions June 30, 1901.				
	New cases.			Relapsed cases.			Total.	Recovered.		Improved.		Unimproved.		Died.		M.	F.			
	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.	M.	F.					
1855	26	37	0				1	1	4	1	1	3	2	3	4	7	28	49	1	2
1856	36	47	0				1	1	6	1	1	2	2	3	4	7	22	44	1	2
1857	24	26	1				1	1	15	1	1	3	2	3	3	7	18	24	1	1
1858	45	63	2				1	1	20	2	2	6	4	6	6	8	8	26	1	1
1859	45	45	2				1	1	17	5	6	11	2	2	4	8	8	29	1	1
1860	67	60	6				1	1	44	9	2	8	3	3	4	11	11	29	2	4
1861	60	30	4				1	1	48	6	2	8	1	1	2	11	11	30	2	4
1862	172	111	7				1	1	133	12	4	13	2	2	4	18	18	37	1	3
1863	323	22	2				1	1	238	16	6	18	2	2	4	32	32	87	1	2
1864	462	23	2				1	1	304	36	7	28	4	4	6	63	63	86	1	2
1865	452	34	2				1	1	271	66	7	73	10	10	14	130	130	161	4	1
1866	182	24	4				1	1	102	21	4	25	10	11	11	61	61	79	6	5
1867	71	18	3				1	1	50	6	3	9	8	8	8	29	29	36	3	3
1868	105	28	15				4	4	68	7	6	13	7	7	7	43	43	52	10	7
1869	114	32	19				1	1	61	18	9	27	9	9	2	46	46	59	7	7
1870	130	26	16				1	1	62	23	9	32	11	11	3	66	66	78	11	14
1871	147	28	14				1	1	52	25	9	34	4	4	2	66	66	78	14	15
1872	120	38	22				1	1	68	18	8	26	9	9	3	66	66	78	14	19
1873	155	28	14				1	1	63	27	12	39	2	2	14	66	66	78	16	18
1874	165	28	27				1	1	96	19	11	36	5	5	7	74	74	85	16	16
1875	136	37	24				1	1	77	35	14	49	4	4	6	81	81	85	13	15
1876	155	37	24				1	1	60	18	9	31	9	9	3	63	63	75	11	11
1877	119	37	20				1	1	69	30	15	45	1	1	4	62	62	69	9	27
1878	109	31	29				1	1	64	26	5	41	2	2	4	56	56	68	8	17
1879	138	42	31				1	1	78	36	5	55	4	4	3	64	64	78	7	25
1880	159	38	51				1	1	73	25	10	35	2	2	4	66	66	88	20	22
1881	135	51	26				1	1	69	25	17	42	2	2	6	62	62	78	26	28
1882	151	59	27				1	1	71	34	8	42	4	4	6	65	65	82	19	19
1883	169	51	32				1	1	85	38	6	54	4	4	10	82	82	97	30	40
1884	245	64	41				2	2	76	26	11	68	3	3	5	127	127	152	30	40
1885	245	72	26				2	2	96	56	15	78	8	8	8	126	126	152	25	32
1886	205	57	29				2	2	74	44	14	58	4	4	4	92	92	108	25	32
1887	184	52	22				2	2	66	33	20	53	6	6	2	84	84	118	34	47
1888	230	68	17				2	2	89	46	16	62	2	2	6	107	107	125	39	59
1889	290	58	23				2	2	21	45	16	52	1	1	2	92	92	120	30	40
1890	256	76	15				3	3	44	37	13	61	4	4	8	132	132	159	38	54
1891	218	64	15				3	3	64	62	12	74	5	5	10	127	127	150	47	60
1892	236	69	25				5	5	50	45	19	64	6	6	8	144	144	172	44	65



R E P O R T
OF
THE SUPERINTENDENT.

GOVERNMENT HOSPITAL FOR THE INSANE,
Washington, D. C., October 2, 1901.

SIR: In accordance with the act of Congress approved June 4, 1880, requiring the Superintendent of the Government Hospital for the Insane to make a report to Congress annually of the detailed expenditures of the hospital for the preceding fiscal year, I have the honor to submit the following statement.

I am, sir, very respectfully, your obedient servant,
A. B. RICHARDSON,
Superintendent.

Hon. E. A. HITCHCOCK,
Secretary of the Interior.

*Detailed statement of receipts and expenditures for the fiscal year ending June 30, 1899
Additional.*

RECEIPTS.

On hand:		
Support and deficiencies		\$300. 55
Miscellaneous receipts		178. 00
		478. 55
		478. 55

EXPENDITURES.

House furnishing, fuel, lights, etc.: Furniture, fixtures, etc		124. 50
Dry goods, clothing, books, stationery, etc.:		
Notions	\$264. 74	
Incidental work, etc.	11. 00	
	275. 74	
Farm, garden, and stables: Plants and seeds		2. 70
Covered into Treasury on support and deficiencies		75. 61
		478. 55
		478. 55

Itemized receipts.

1900. September 1. Cash received for board of John T. Carroll.....		178. 00
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Classified expenditures, Government Hospital for the Insane, for fiscal year ending June 30, 1899—Additional.

HOUSE FURNISHING, FUEL, LIGHTS, ETC.

Date.	Furnished by—	Voucher No.	Furniture, fixtures, etc.	Grand Total.
1900.				
Oct. 22	M. G. Copeland & Co.....	351	\$115. 25	.....
Sept. 28	Geo. W. Spier.....	349	9. 25	.....
	Total.....		124. 50	\$124. 50

DRY GOODS AND CLOTHING, BOOKS, STATIONERY, AND MISCELLANEOUS.

Date.	Furnished by—	Voucher No.	Notions.	Incidental work, etc.	Grand total.
1900.					
Oct. 22	Melville Lindsay.....	350	\$264. 74	.....	.....
22	Frank Richter & Co.....	352		\$11. 00	.....
	Total.....		264. 74	11. 00	\$275. 74

FARM, GARDEN, AND STABLES.

Date.	Furnished by—	Voucher No.	Plants and seeds.	Grand total.
1901.				
Aug. 14	Peter Henderson & Co.....	358	\$2. 70	\$2. 70

Detailed statement of receipts and expenditures for the fiscal year ending June 30, 1900—Additional.

RECEIPTS.

On hand:		
Support (deficiency).....		\$56. 73
Repairs and improvements.....		365. 78
Miscellaneous receipts.....		3, 085. 99
		<u>3, 508. 50</u>

EXPENDITURES.

Subsistence: Eggs.....		\$0. 76
House furnishing, fuel, lights, etc.:		
Furniture, fixtures, etc.....	\$800. 15	
Bedding.....	128. 57	
Laundry supplies.....	177. 72	
		1, 106. 44
Dry goods, clothing, books, stationery, and miscellaneous:		
Boots, shoes, and slippers.....	113. 80	
New clothing.....	346. 30	
Books and periodicals.....	120. 72	
Stationery and postage.....	4. 16	
Freight and hauling.....	1. 47	
Incidental work, etc.....	22. 90	
Photographic instruments, etc.....	108. 22	
		717. 57
Medical supplies, expended for amusement of patients, etc.:		
Pathological supplies.....		19. 34
Farm, garden, and stables: Manures.....		25. 00

Repairs and improvements:

Lumber, doors, etc	\$111.38
Hardware, etc.....	76.79
Engineers and plumbers' supplies.....	.50
Sundry small repairs.....	24.85
Electrical supplies.....	1,239.75
	<u>\$1,453.27</u>

Covered into United States Treasury on repairs and improvements....	2.53
Covered into United States Treasury on support and deficiency.....	183.59

3,508.50

Classified expenditures, Government Hospital for the Insane, for fiscal year ending June 30, 1900—Additional.

SUBSISTENCE.

Date.	Furnished by—	Voucher No.	Butter, milk, cheese, eggs, etc.	Grand total.
1901. Feb. 16	W. W. Connor	1124	\$0.76	\$0.76

HOUSE FURNISHING, FUEL, LIGHTS, ETC.

Date.	Furnished by—	Voucher No.	Furniture, fixtures, etc.	Bedding.	Laundry supplies.	Grand total.
1900. July 28	W. B. Moses & Sons.....	1106	\$653.21			
Sept. 25	The Hurelcl Laundry Machinery Co.....	1109			\$174.47	
Oct. 22	Melville Lindsay	1115		\$128.57		
22	M. G. Copeland & Co.....	1117	142.64			
Apr. 30	Mayoleine Fluid and Soap Co.....	1122			3.25	
1901. Mar. 13	Dow Wire Works.....	1126	4.30			
	Total.....		800.15	128.57	177.72	\$1,106.44

DRY GOODS AND CLOTHING, BOOKS, STATIONERY, AND MISCELLANEOUS.

Date.	Furnished by—	Voucher No.	Boots, shoes, and slippers.	New clothing.	Books and periodicals.	Stationery and postage.	Freight and hauling.	Incidental work, etc.	Photographic instruments, etc.	Grand total.
1900. Sept. 25	Johnson & Luttrell.....	1107		\$198.00						
	Western Union Telegraph Co.....	1110				\$4.16				
29	The Washington Post Co.....	1112			\$120.72					
Oct. 22	Jos. Auerbach.....	1114		3.12						
24	J. E. Gillett.....	1119						\$22.90		
Nov. 23	Blue Line Transfer Co.....	76					\$1.47			
22	Max Frank.....	1120	\$109.80							
	E. J. Fullman.....	1121							\$108.22	
1901. Apr. 24	Saks & Co.....	1129		145.18						
	Wm. Hahn & Co.....	1130	4.00							
	Total.....		113.80	346.80	120.72	4.16	1.47	22.90	108.22	\$717.57

Classified expenditures, Government Hospital for the Insane, for fiscal year ending June 30, 1900—Additional—Continued.

MEDICAL SUPPLIES, EXPENDED FOR AMUSEMENT OF PATIENTS, ETC.

Date.	Furnished by—	Voucher No.	Pathological supplies.	Grand total.
1901. Feb. 14	I. W. Blackburn.....	1123	\$19.34	\$19.34

FARM, GARDEN, AND STABLE.

Date.	Furnished by—	Voucher No.	Manures.	Grand total.
1901. Feb. 25	Adams Express Co.....	1125	\$25.00	\$25.00

REPAIRS AND IMPROVEMENTS.

Date	Furnished by—	Voucher No.	Lumber, doors, etc.	Hardware, etc.	Engineers' and plumbers' supplies	Sundry small repairs.	Electrical supplies.	Grand total.
1900. Sept. 25	Frank Libbey & Co.....	74	\$19.22					
	.....do.....	1108	92.16					
29	George W. Spier.....	1111				\$24.85		
Oct. 22	M. Du Perow.....	75					\$342.56	
	J. B. Kendall.....	1113		\$46.29				
	M. Du Perow.....	1116					897.19	
	Frank Richter & Co.....	1118			\$0.50			
1901. Apr. 17	W. T. & F. B. Weaver.....	1127		28.00				
20	H. I. Gregory.....	1128		2.50				
	Total.....		111.38	76.79	50	24.85	1,289.75	\$1,453.27

Itemized receipts.

1900.	Cash received for—	
Aug. 21.	Board of Harriet B. Winn.....	\$45.00
Sept. 1.	Board of John T. Carroll.....	248.00
3.	Board of John L. Diggins.....	50.00
7.	Board of Ferdinand Hocheisen.....	93.57
15.	Board of Marine Hospital Service patients.....	1,492.71
	Reimbursement Swift Provision Company.....	43.71
Oct. 3.	Board of Chu-e-rah-rah-he-kah.....	91.00
	Board of Bobtail Bear.....	91.00
	Board of John Woodruff.....	91.00
	Board of F. W. Peake.....	91.00
	Board of Frank White.....	73.00
	Board of Joseph D. Marshall.....	91.00
Nov. 7.	Board of John G. Hildt.....	260.00
1901.		
Jan. 12.	Board of Alice B. King.....	260.00
22.	Board of Bryan H. Hall.....	65.00
	Total.....	3,085.99

Detailed statement of receipts and expenditures for the fiscal year ending June 30, 1901.

RECEIPTS.

Appropriation for:	
Support	\$313, 200. 00
Support (deficiency)	30, 000. 00
Repairs—	
General repairs and improvements	25, 000. 00
General repairs and improvements (deficiency)	13, 500. 00
Special repairs	34, 200. 00
Buildings and grounds	1, 117, 000. 00
District of Columbia, for board	127, 000. 00
On hand, buildings and grounds	22, 175. 58
Miscellaneous receipts	42, 994. 10
	<hr/>
	1, 725, 069. 68

EXPENDITURES.

Subsistence:	
Flour, meal, crackers, etc.	\$14, 390. 48
Ice	6, 169. 73
Butter, milk, cheese, and eggs	33, 790. 44
Fresh meats	26, 266. 84
Salt and smoked meats	18, 258. 23
Fish and poultry	8, 139. 84
Tea and coffee	8, 779. 11
Sugar, molasses, etc	13, 151. 90
Lard	2, 749. 30
Fruits and vegetables	12, 334. 05
Other groceries	14, 633. 60
	<hr/>
	158, 663. 52
House furnishing, fuel, lights, etc.:	
Furniture, fixtures, etc.	5, 544. 68
Bedding	3, 309. 91
Table and towel linen	1, 791. 99
Utensils, crockery, etc.	4, 287. 88
Kitchen fittings, etc.	488. 47
Laundry supplies	6, 883. 46
Carpets, etc.	526. 19
Hard coal	3, 012. 71
Soft coal	22, 781. 58
Wood	35. 00
Charcoal	48. 00
	<hr/>
	48, 709. 87
Dry goods and clothing, books, stationery, and miscellane- ous:	
Boots, shoes, and slippers	3, 175. 80
New clothing	9, 677. 16
Clothing material	12, 094. 39
Hats	170. 75
Notions	1, 275. 50
Books and periodicals	483. 77
Stationery and postage	2, 477. 17
Freight and hauling	721. 77
Incidental work, etc.	103. 25
Advertising	24. 50
Photographic instruments, etc.	382. 34
	<hr/>
	30, 586. 40
Medical supplies, expended for amusement of patients, etc.:	
Drugs, medicines, etc.	6, 944. 89
Alcoholic stimulants	1, 599. 32
Instruments, etc.	811. 78
Returning eloped patients	240. 45
Amusement of patients	154. 65
Sending to the homes	198. 25
Pathological supplies	1, 467. 59

Medical supplies, expended for amusement of patients,
etc.—Continued:

Dental supplies.....	\$4. 25	
Musical instruments, etc.....	74. 03	
		\$11, 495. 21
Farm, garden, and stable:		
Feed.....	7, 557. 94	
Implements, horse shoes, etc.....	618. 24	
Plants and seeds.....	856. 29	
Manures.....	417. 80	
Live stock.....	5, 830. 40	
Harness and repairs.....	116. 71	
Vehicles and repairs.....	2, 215. 80	
Hay and straw.....	740. 40	
Incidental expenses.....	898. 95	
		19, 250. 53
Repairs and improvements:		
Lumber, doors, etc.....	7, 720. 67	
Hardware, etc.....	2, 873. 84	
Engineers' and plumbers' supplies.....	16, 878. 51	
Paints, oils, glass, etc.....	5, 628. 38	
Roofing.....	415. 00	
Iron work, etc.....	5, 620. 71	
Plastering, etc.....	75. 00	
Sundry small repairs.....	6, 292. 07	
Masons' supplies.....	2, 526. 78	
Electrical supplies.....	1, 850. 58	
Building.....	83, 610. 59	
		133, 492. 11
Salaries and wages:		
Superintendent, physicians and general office.....	24, 820. 34	
Ward service.....	98, 259. 03	
Inside domestic department.....	29, 220. 33	
Engineers' department.....	16, 658. 75	
Farm and garden, hauling coal, etc.....	40, 483. 99	
Mechanics and helpers.....	27, 935. 06	
Making clothing.....	28. 50	
Laundry.....	8, 660. 99	
Sunday service.....	400. 00	
		246, 466. 99
On hand:		
Support and deficiency.....		4, 998. 12
Repairs—		
General repairs and deficiency.....		19. 26
Special repairs.....		3, 586. 36
Buildings and grounds.....		1, 067, 801. 31
Total.....		1, 725, 069. 68

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.
 SUBSISTENCE—Continued.

Date.	Furnished by—	Voucher No.	Flour, meal, crackers, etc.	Ice.	Butter, milk, cheese, and eggs.	Fresh meats.	Salt and smoked meats.	Fish and poultry.	Tea and coffee.	Sugar, molasses, etc.	Lard.	Fruits and vegetables.	Other groceries.	Grand total.
1900.														
Aug. 28	J. Evanson & Sons	175											\$41.65	
28	N. H. Shea	189					\$602.17						6.50	
28	C. E. Lyman	188												
28	Hanvelme Packing Co.	187	\$228.21				224.00							
28	Wm. A. Laffler	189	938.40							\$37.95	\$261.52		75.11	
28	B. B. Fishbaw & Bro.	200								8.00			197.82	
28	Frank Hancock	204											46.85	
28	Daniel Hume	205											46.50	
28	Thos. C. Ingraham	212											57.03	
28	P. H. Sibley	213						\$91.80						
28	Benjamin Powdermaker	215			\$661.07	\$317.63	290.65	147.40						
28	Goldman, Lyre & Co.	219												
28	G. Thon Wade & Co.	220												
28	J. J. Adams & Co.	221												
28	W. Washier & Sons	222			221.65									
28	Albert Conroy	223			410.50									
28	J. H. Haggerty	224												
28	Chas. H. Jarvis & Sons	225						28.75						
28	Armour & Co.	226				8,097.14		229.13						
28	H. I. Straup	227												
28	American Ice Co.	228		\$1,690.50										
July 30	Jordan Stabler	253							\$181.77					87.55
Aug. 28	Brown Bros. Co.	254												312.31
Aug. 28	The Jacob Fold Packing Co.	258					485.00							481.83
Sept. 28	Jordan Stabler	269												
28	John J. O'Rourke	270							371.31					452.74
28	Edmund Clarke, Jr.	276								1,403.40				
28	Schwarsschild & Sulzberger	277				97.97								24.96
28	Armour & Co.	278				1,307.20								
28	Gilpin, Langdon & Co.	281												
28	Daniel Loughran	285												36.95
28	Andrew Löffler	288					224.00							29.12
28	The J. C. Ersgood Co.	291												
28	Benjamin Powdermaker	292												
28	Chas. H. Jarvis & Sons	293					264.95							
28	E. J. Adams & Co.	294												49.40
28	James F. Orster	298			8,772.44			183.55						
28	C. E. Lyman	299												445.54
28	Browning & Middleton	301							117.12					

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

SUBSISTENCE—Continued.

Date.	Furnished by—	Voucher No.	Flour, meal, crackers, etc.	Ice.	Butter, milk, cheese, and eggs.	Fresh meats.	Salt and smoked meats.	Fish and poultry.	Tea and coffee.	Sugar, molasses, etc.	Lard	Fruits and vegetables.	Other groceries.	Grand total.
1901.														
Mar. 25	Armour Packing Co	895				\$743.06	\$80.00		\$177.70			\$248.25	\$107.90	
26	Jordan Stabler	896							\$77.88	\$1,512.43			18.00	
29	John J. O'Rourke	898											26.84	
29	J. Ockershausen	899											74.88	
29	Lewis Wallace	906											900.74	
29	Rumford Chemical Works	907											11.70	
29	Brown Bros. Co	908			\$650.00									
29	Glipin, Langdon & Co.	909												
29	The Capital City Dairy Co	917				230.98								
29	Schwarzschild & Sulzberger	941				4,203.87								
29	Armour & Co	942					199.03							
29	C. E. Lyman.	943					169.08							
29	Benjamin Powdermaker.	944												
30	R. C. Dotson	945			907.20									
30	N. H. Shea	948							\$238.40			30.00	80.40	
30	Browning & Middleton	949						182.80						
30	J. P. Sweeney	951												
30	J. H. Hogan	952												
30	Daniel Loughran	953												
30	Havener Baking Co	954	\$176.37											
30	C. Demekas.	956												
30	Joe Wabler & Sons.	957			279.00									
30	The Ashbourn Farm Dairy	958			262.80									
30	The Jacob Dold Packing Co	964												
30	John J. O'Rourke	1016					1,474.70		375.86	61.88				14.54
30	Lewis Wallace	1020												
30	Armour & Co	1026				1,680.25						409.94		
30	Jordan Stabler	1027							182.14					
30	R. C. Dotson	1028			766.00									
30	W. M. Gall & Co	1029												
30	Daniel Loughran	1035	2,482.89											
30	Havener Baking Co	1036	122.80											
30	James F. Oyster	1039			972.04									
30	P. H. Sheely	1040												
30	E. J. Adams & Co	1041												
30	Chas. H. Jaylins & Sons	1043						302.40				481.17		
30	The J. C. Eggeod Co	1044						344.98				42.10		
30	J. H. Hogan	1045												344.21
30	B. B. Earnshaw & Bro.	1046	66.50					127.75						408.26
30	Frank Hume	1047								74.75	\$457.20			239.06

Apr.

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

SUBSISTENCE—Continued.

Date.	Furnished by—	Voucher No.	Flour, meal, crackers, etc.	Ice.	Butter, milk, cheese, and eggs.	Fresh meats.	Salt and smoked meats.	Fish and poultry.	Tea and coffee.	Sugar, molasses, etc.	Lard.	Fruits, and vegetables.	Other groceries.	Grand total.
1901														
June 26	Armour Packing Co.	1275					\$49.40							
26	Alfred W. Johnson	1279							\$25.00					
27	The Capital City Dairy Co.	1289			\$468.00								\$131.90	
28	N. H. Sloss	1292							9.45					
28	Browning & Haines	1305											77.80	
28	Daniel Loughran	1317				\$108.11								
28	Schwarzchild & Suizberger	1318					347.16							
28	B. B. Barnshaw & Bro.	1319	\$88.00				189.00						162.01	
28	C. E. Lyman	1320												
28	Andre Joffler	1323								\$384.88	\$260.99		181.70	
28	Frank H. June	1324	94.45										246.57	
28	The J. C. Ergood Co.	1325												
28	Havenner Baking Co.	1326			1,446.97									
28	James P. Oyster	1328	969.40											
28	W. M. Galt & Co.	1328												
28	B. Taylor Powdermaker	1330				336.42								
28	H. J. Strang	1334										\$17.61		
28	Albert Curry	1337										516.50		
28	John Hecker & Sons	1338			211.95									
28	John Hecker & Sons	1338			188.90									
28	C. Daniels	1338												
28	Charles H. Hawkins & Sons	1340											82.25	
28	Golden Levee & Co.	1341												
28	Grover, Lavee & Co.	1341												
28	Amorin Ice Co.	1347			\$672.75									
28	P. H. Sheehy	1347	18.30											
28	E. J. Adams & Co.	1348												
28	Armour & Co.	1348			1,920.25									
28	Browning & Middleton	1422							88.92					
	Total		14,390.46	6,169.73	83,790.44	26,266.84	18,258.28	8,189.84	8,779.11	18,151.90	2,749.30	12,884.05	14,688.60	\$158,663.52

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.
HOUSE FURNISHING, FUEL, LIGHTS, ETC.—Continued.

Date.	Furnished by—	Voucher.	Furniture, fixtures, etc.	Bedding.	Table and towel linen.	Utensils, crockery, etc.	Kitchen fittings.	Laundry supplies.	Car-pets, etc.	Hard coal.	Soft coal.	Wood.	Char-coal.	Grand total.
1900.														
Sept. 29	Thomas G. Hood	279		\$177.19										
29	Wash B. Williams	287	\$89.90						\$22.60		\$91.31			
29	Johnson Bros	297							46.18					
29	Woodward & Lothrop	304												
29	F. H. Sheehy	313					\$68.75							
29	Frank Hume	314						\$17.50						
29	Guy, Curran & Co.	320	149.02				13.91							
29	Shoemaker & Busch	323												
29	The Christopher Lipps Co	327						176.40						
29	Dulin & Martin Co.	332												
29	Library Bureau	360	85.00		\$270.00	\$154.89								
29	John Wanamaker	362			172.65									
Oct. 31	Thomas G. Hood	384												
31	The Hill, Whitney & Wood Co	385	54.00											
31	James K. Shaw	391				271.43								
31	Gustav M. Rosenblatt	393						221.80						
31	H. Kohnstamm & Co.	398						51.57						
31	The Christopher Lipps Co	403						188.92						
31	John B. Lerner, attorney	410						350.00						
31	John B. Daish	411								\$1,419.33				
31	Wash B. Williams	416	50.75						54.00					
31	Frank Hume	417												
31	Leasburgh & Bro	420												
Nov. 20	Wm. L. Read	464			61.10									
28	W. B. Moses & Sons.	471	69.25								16,008.76			
28	Chas. R. Edmonston	479	76.86											
28	Wash B. Williams	490												
28	Shoemaker & Busch	483							24.00					
28	Gustav M. Rosenblatt	497						13.91						
28	The Henric Laundry Machin- ery Co.	497						221.67						
28	J. Frank Campbell	498												
28	Paul Biser, Jr., & Bro.	500	14.40											
28	H. Kohnstamm & Co	516				35.00								
30	Frank Hume	526						43.99						
28	Edward S. Pierce	562				4.80		17.67						
31	Thomas I. Clark	565											\$12.00	
31	Jos. D. Wilson	580		244.50										
31	The John Van Range Co.	582				250.00								
31	Chas. R. Edmonston	584												
31	Wm. L. Read	587	28.40								574.45			

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

HOUSE FURNISHING, FUEL, LIGHTS, ETC.—Continued.

Date.	Furnished by—	Voucher.	Furniture, fixtures, etc.	Bedding.	Table and towel linen.	Utensils, crockery, fittings, etc.	Kitchen supplies.	Laundry, etc.	Car-pets, etc.	Hard coal.	Soft coal.	Wood.	Char-coal.	Grand total.
1900.														
Mar. 29	Hartford Woven Wire Mattress Co.	922	\$74.07											
29	Edward S. Pierce	962				\$16.20								
29	H. Kohnstamm & Co.	964		\$11.10				4.00						
30	Christopher Lipps Co.	938						\$67.04						
30	James K. Shaw	940				47.06		186.57						
30	Guy Curran & Co.	946	241.68											
30	Paul Hiser, Jr., & Bro.	968				12.00					\$3,064.08			
30	Wm. L. Read	998						183.57						
30	The Christopher Lipps Co.	999												
30	Hartford Woven Wire Mattress Co.	1007	2.10											
30	Henric Laundry Machinery Co.	1014						4.00						
30	J. P. Nawrath	1015		\$11.10										
30	James K. Shaw	1017				83.59								
30	H. Kohnstamm & Co.	1022			180.87			34.64						
30	Thomas G. Hood	1024												
30	Richard E. Farr	1025	68.38											
30	Wash. B. Williams	1032	94.40											
30	Somerset R. Waters	1048						17.60						
30	Wyckoff, Seamans & Benedict.	1052	97.60											
30	Dullin & Martin Co.	1052		320.00										
30	Delany & Co.	1106												
30	Edward S. Pierce	1107				\$14.40								
30	Branball, Deane Co.	1128				5.60		36.57						
30	H. Kohnstamm & Co.	1141						223.91						
May 28	Joe. D. Wilson	1149		243.00										
28	Gustav M. Rosenblatt.	1150												
28	James K. Shaw	1152						132.19						
31	Dullin & Martin Co.	1178						272.94						
31	Bunn Bros.	1183	45.77											
31	Wm. L. Read	1191									1,368.62			
31	Chas. R. Edmonston	1194												
31	John B. Deals	1204												
31	Thos. I. Clark	1245												
June 21	H. W. D. Nicholson	1236	6.00											
25	The Julius Lainsburgh Furniture and Carpet Co.	1259	243.25											
26	James K. Shaw	1260				15.34								
26	Gustav M. Rosenblatt.	1261						69.29						
26	J. Eavenson & Sons	1262						17.80					\$12.00	

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

DRY GOODS AND CLOTHING, BOOKS, STATIONERY, AND MISCELLANEOUS—Continued.

Date.	Furnished by—	Voucher No.	Boots, shoes, and slippers.	New clothing.	Clothing material.	Hats.	Notions.	Books and periodicals.	Stationery and postage.	Freight and hauling.	Incidental work, etc.	Advertising.	Photographic instruments, etc.	Grand total.
1900.														
July 30	Max Frank	46	\$31.96											
30	W. L. King	61	6.60				\$140.64							
31	Guy Curran & Co.	70			\$599.82				\$51.60					
31	E. Morrison Paper Co.	88								\$8.25				
31	Lansburgh & Bro.	92			97.88		64.51			.90				
31	Adams Express Co.	103												
31	United States Express Co.	104												
Aug. 17	H. Morse Thatcher.	129						\$3.50		43.00				
17	The Geo. W. Knox Express Co.	180								2.58				
17	Blue Line Transfer Co.	181						40.00						
18	George W. Sweetstar	182						6.00						
18	Henry Hartwig	185							2.22					
24	Chas. G. Stott & Co.	142		2.00										
26	W. L. King	144												
26	Wm. Bullantyne & Sons.	148							6.22					
26	Wm. Hahn & Co.	149		691.00										
26	A. L. Williston	150						7.18	96.00					
26	Carl Fischer	153					2.40							
26	John F. Ellis & Co.	158					72.00							
26	Strong, Cobb & Co.	158												
26	Parker, Bridget & Co.	164												
26	John E. Scott	170		\$410.00	440.38		6.60							
26	M. F. Bush	172			498.24									
26	Jos. D. Wilson	182												
26	Wyckoff, Scamans & Benedict	187				\$27.75			5.20					
26	Joseph Auernbach	188												
26	Saks & Co.	191												
29	Melville Lindsay	201		174.06			70.82							
29	Lansburgh & Bro.	203		286.00			23.68							
29	E. Morrison Paper Co.	208					18.50							
29	Guy Curran & Co.	210							29.00					
29	R. P. Clarke Co.	211						48.40						
29	United States Express Co.	229			79.88									
29	B. & O. R. Co.	230			25.95									
29	Adams Express Co.	231												
29	Geo. W. Sweetstar	238						15.00						
29	do.	260						6.00						
29	W. U. Telegraph Co.	262							1.62					
29	The Washington Post Co.	264						40.48						

Sept. 14

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25

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

DRY GOODS AND CLOTHING, BOOKS, STATIONERY, AND MISCELLANEOUS—Continued.

Date.	Furnished by—	Voucher No.	Boots, shoes, and slippers.	New clothing.	Clothing material.	Hats.	Notions.	Books and periodicals.	Stationery and postage.	Freight and hauling.	Incidental work, etc.	Advertising.	Photographic instruments, etc.	Grand total.
1901.														
May 17	Washington City post-office	1118							\$50.00	\$71.03				
18	The Geo. W. Knox Express Co.	1119								45.67				
18	Blue Star Co.	1120							14.25					
18	Department of the Interior	1121												
22	Woodward & Lothrop	1122					\$200.59							
24	Izidor Kaufman	1123		\$10.00										
27	The Geo. W. Knox Express Co.	1126								21.84				
28	Thos. G. Hood	1147		42.50										
28	Jos. D. Wilson	1149			\$127.26									
29	E. Morrison Paper Co.	1157							57.21					
29	Joseph Auerbach	1159		11.05										
29	Johnson & Lattrell	1160			88.86									
29	Wyckoff, Seamans & Benedict	1166							1.60					
31	Saks & Co.	1169		\$50.00										
31	W. L. Kling	1193						\$17.54						
31	Fred A. Schmidt	1197	\$5.00											
31	Guy Curran & Co.	1200							1.25					
31	Brentano's	1207					5.65							
31	Adams Express Co.	1210						11.85		10.25				
June 26	John E. Scott	1267												
26	A. L. Williston	1280			60.42				96.00					
26	Department of the Interior	1288							177.65					
27	J. A. Hanson	1290						87.98						
27	W. L. Kling	1298	2.85											
27	J. M. Peake, agent	1298					.80							
27	Wm. Ballantyne & Sons	1298												
27	Parker, Bridget & Co.	1303							1.45					
28	Joseph Auerbach	1305		10.00										
28	Wyckoff, Seamans & Benedict	1305		75.90										
28	E. Morrison Paper Co.	1310							4.70					
28	Lansburgh & Bro.	1318		13.20					82.75					
29	E. P. Clarke Co.	1327		166.73										
29	F. J. Pullman	1351												
29	The Washington Post Co.	1345						96.08					\$50.62	
29	Guy Curran & Co.	1349												
29	B. & O. R. Co.	1352					5.40							
29	do.	1353								70.85				
29	Adams Express Co.	1354								38.25				

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

FARM, GARDEN, AND STABLE—Continued.

Date.	Furnished by—	Voucher No.	Feed.	Imple- ments, horseshoes, etc.	Plants and seeds.	Manures.	Live stock.	Harness and repairs.	Vehicles and repairs.	Hay and straw.	Incidental expenses.	Grand total.
1900.												
Dec. 1	C. W. Hopkins.....	564									\$4.00	
17	R. S. Burke.....	568			\$99.10							
21	John A. Owens.....	573			15.00						20.48	
31	The W. T. Falconer Mfg. Co.	602							\$13.50			
31	Kane & Casper.....	604										
31	James W. Bartley.....	605			9.00			\$57.00				
31	Lutz & Co.....	607										
31	W. I. Brooke & Co.....	625			1.80							
31	John B. Dahan.....	628	\$205.87									
31	B. B. Earnshaw & Co.....	633	568.75									
31	W. M. Galt & Co.....	634	438.80									
1901.												
Jan. 19	N. Studer.....	667			20.00		\$1,430.00					
21	F. Shea.....	669					141.75					
26	Norton Manufacturing Co.	675					54.00					
29	Andrew Lottler.....	708										
29	Equus Harig.....	720		\$80.00								
29	Edward S. Schmid.....	729			1.30							
29	W. I. Brooke & Co.....	734										
29	C. W. Hopkins.....	772		59.50							1.00	
Feb. 6	K. P. Shea.....	773					495.00				25	
13	Wm. Smith.....	775										
13	W. M. Galt & Co.....	780	562.70									
13	B. B. Earnshaw & Bro.....	780	402.75									
20	The A. T. Root Co.....	783										
23	John B. Dahan.....	823								\$324.65	38.82	
23	Louis Harig.....	834		24.70								
24	B. B. Earnshaw & Bro.....	837	153.00									
24	W. M. Galt & Co.....	845	81.00								39.70	
24	Lutz & Co.....	847										
24	Max Frank.....	852										
Mar 15	F. P. Shea.....	857					605.00	26.13				
22	John B. Larmer, Attorney	862									700.00	
25	George W. Fowler.....	884					55.00					
29	C. M. Woolf & Co.....	912		6.70			5.00					
29	Frank O. Smith.....	919										
29	Washington Gaslight Co.....	925										
30	James W. Bartley.....	947									87.70	
30	Andrew Lottler.....	950			199.55		108.00					
30	H. B. Bird.....	955					60.00					

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

REPAIRS AND IMPROVEMENT—Continued.

Date.	Furnished by—	Voucher No.	Lumber, doors, etc.	Hard-ware, etc.	Engi-neers' and plum-b-ers' sup-ples.	Paints, oils, glass, etc.	Roof-ing.	Iron work, etc.	Plaster-ing, etc.	Sundry small re-pairs.	Masons' sup-ples.	Electrical sup-ples.	Building.	Grand total.
1900.														
Dec. 24	Rudolph Jouvonal	281											\$200.00	
31	G. A. Schneider's Sons	282											8,000.00	
28	Appleton P. Clark	284											200.00	
28	Boring & Titton	285											200.00	
28	Marsh & Peter	286											200.00	
28	Wyatt & Nolting	287											200.00	
1	Standard Oil Co.	561				\$33.00								
15	F. A. Clark	567								\$40.00				
31	National Electrical Supply Co.	577									\$362.71			
31	The J. L. Mott Iron Works	588			\$28.00									
31	Richard E. Farr	589								2.52				
31	Mica Insulator Co.	591												
31	Simmons & Watkins	594			49.00									
31	Fred A. Schmidt	596		\$28.56	16.00									
31	John B. Espey	602		116.07										
31	Louis Harrig	606												
31	The E. F. Brooks Co.	610												
31	Donahy & Jennings	617				6.16								
31	Geo. F. Muth & Co.	624				250.95								
31	W. J. Brooke & Co.	626		18.85										
31	Charles Becker	632				398.13								
1901.														
Jan. 26	The Brennan Construction Co.	60											800.00	
31	Sunderland Bros.	61											150.00	
31	James B. Clow & Sons	62			644.66									
31	V. T. Walker's Sons	63												
31	Hartin F. McNamara	64			296.70									
29	Kosabe & Mattison Co.	65												
29	The Grove Lime and Coal Co.	66												
29	G. A. Schneider's Sons	67						\$15.18						
29	H. A. Herrick & Co.	68						189.00						
29	Dufur & Co.	69												
29	Chureh & Stephenson	70	\$200.89											
29	Mrs. S. M. Frazier	61									63.69			
1900.														
Dec. 28	Yost & Packard	288											200.00	
1901.														
Jan. 12	Sunderland Bros.	289											200.00	

REPAIRS AND IMPROVEMENT—Continued.

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

Date.	Furnished by—	Voucher No.	Lumber, doors, etc.	Hard-ware, etc.	Engi-neers' and plum-bers' sup-plices.	Paints, oils, glass, etc.	Roof-ing.	Iron work, etc.	Plaster-ing, etc.	Sundry small re-pairs.	Masons' supplies.	Electrical supplies.	Building.	Grand total.
1901.														
Jan. 29	Shoemaker & Busch	689				\$86.37								
29	Strong, Cobb & Co	696				2.42								
29	Max Frank	701			\$12.03									
29	Donnelly & Jennings	706				8.26								
29	John B. Esprey	718		\$6.30										
29	J. W. Bartley	719		11.81										
29	Standard Oil Co.	723				110.75								
29	J. W. Gregg	739	\$283.49											
29	Geo. F. Muth & Co.	740				272.83							\$1,796.00	
Feb. 20	The Brennan Construction Co.	64						\$27.00					150.00	
23	Sunderland Bros.	66											14.83	
23	John T. Springmann, Jr., & Bro.	68											300.00	
21	The Evening Star Newspaper Co.	331											618.00	
18	Joe. F. Hurdie	332												
23	J. E. Hurley	333											75.00	
23	George K. Toorey	334			120.00								16.00	
23	James Berrall	335											200.00	
23	P. A. Clark	337											250.00	
23	Joe. F. Hurdie	338											22.00	
11	George B. Post	339											9,000.00	
11	Walter Cope	340											200.00	
18	Shepley, Rutan & Coolidge	341											250.00	
18	The Judge	342											22.00	
21	Olmsstead Bros.	343											28.00	
21	Sunderland Bros.	344											520.00	
21	The Brennan Construction Co.	345											900.00	
21	Darius E. Burton	346											200.00	
21	Kudolph Jouvanel	347											28.00	
Jan. 19	The Thompson C. Gill & Co.	763		14.00									520.00	
28	The Chesapeake Electric Co.	799				68.63						\$56.00	200.00	
28	Errico & Salomatin	800												
28	Niagara Machine & Tool Works	812		37.00										
28	Johns Hopkins Oil Co.	820				77.05								
28	Geo. F. Muth & Co.	824				198.48								
28	Donnelly & Jennings	832				5.69								
28	John B. Esprey	836		142.63										
28	W. F. Mobley & Co.	69								\$47.70				
Mar. 18	The Brennan Construction Co.	70											2,273.53	

Classified expenditures, Government Hospital for the insane, for the fiscal year ending June 30, 1901—Continued.
 REPAIRS AND IMPROVEMENTS—Continued.

Date.	Furnished by—	Voucher No.	Lumber, doors, etc.	Hard-ware, etc.	Engi-neers' and plum-bers' sup-plies.	Paints, oils, glass, etc.	Roof-ing.	Iron work, etc.	Plaster-ing, etc.	Sundry small re-pairs.	Masons' supplies.	Electrical supplies.	Building.	Grand total.
1901.														
Apr. 24	J. E. Hurley	97			\$55.98									
27	R. F. Bradbury	98									\$54.57			
27	Philip Smith	99									20.00			
27	John C. Moulger Co.	100	\$20.25											
30	The Grove Lime and Coal Co.	101									50.24			
30	Mrs. S. M. Frazier	102									72.38			
30	The Breunan Construction Co.	104												\$1,500.00
17	John Jacoby	963									2,100.00			
17	Rudolph Jouvenal	964									100.00			
20	The Evening Star	965									14.40			
20	Hugh Kelly	966									136.00			
27	Joe. F. Hurdle	967									946.00			
27	C. A. Schneider's Sons	968									100.23			
27	James Berrall	969									100.00			
27	F. G. Roberts	970									209.00			
27	Chas. White & Co.	971									45.85			
30	do.	972				\$294.79							471.67	
12	Charles Becker	995										\$281.65		
26	The E. F. Brooks Co.	1006				89.65								
27	Standard Oil Co.	1006												
30	Duparquet, Huot & Momeuse Co.	1018	\$4.20											
30	Strong, Cobb & Co.	1019				24.99								
30	Geo. F. Muth & Co.	1060				467.69								
30	Frank E. Hopkins	1060	29.35											
30	John B. Espy	1072	17.77											
30	Donnelly & Jennings	1075				6.66							200.00	
May 31	Sunderland Bros.	1												
Apr. 23	Church & Stephenson	105	\$695.34											
Apr. 23	Cuyler & Mohler	108			4.20									
May 24	Otis Elevator Co.	109												
31	The Grove Lime and Coal Co.	111												\$16.85
31	H. A. Herrell & Co.	112									43.90			
31	J. W. Tolson	113	22.75								236.10			
31	Mrs. M. Frazier	114									6.36			
31	James Berrall	973											68.37	
13	do.	974											29.45	
13	Wm. E. DeWitt	975											256.10	
26	James Berrall	976											100.00	
26	James Berrall	976											100.00	

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

REPAIRS AND IMPROVEMENT—Continued.

Date.	Furnished by—	Voucher No.	Lumber, doors, etc.	Hard. ware, etc.	Eng- nee's' plumb- ers' sup- plies.	Paints, oils, glass, etc.	Roof- ing.	Iron- work, etc.	Plaster- ing, etc.	Sundry small re- pairs.	Masons' supplies.	Electrical supplies.	Building.	Grand total.
1901.														
June 29	Johns Hopkins Oil Co	1,405				\$63.10								
29	Donnelly & Jennings	1,406				8.08								
29	Max Frank	1,411			\$10.82									
29	Remington Machine Co.	1,416			14.65									
29	Thos. W. Smith	1,425	\$227.01											
29	Thos. Somerville & Sons	124			125.74					\$4.00				
29	J. F. Manning & Co	125												
29	J. W. Tolson	127	1.40					\$24.64						
29	Dufur & Co.	128			47.55			44.45						
29	Cuyler & Mohler	129												
29	E. N. Gray & Co.	130			3.00									
29	J. T. Walker & Sons	1428			164.65						\$35.05			
29	E. G. Schafer & Co.	1,428												
29	Thos. Somerville & Sons	1,432												
			7,720.67	\$2,873.84	16,878.51	5,628.86	\$415.00	5,620.71	\$75.00	6,292.07	2,528.78	\$1,850.68	\$88,610.59	\$138,492.11

SALARIES AND WAGES.

Date.	Furnished by—	Voucher No.	Superin- tendent, physicians, and gen- eral office.	Ward service.	Inside domestic depart- ment.	Engineers' depart- ment.	Farm and garden, hauling coal, driv- ers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1900.												
July 31	Pay roll, repairs	8						\$1,167.80				
31	Chas. M. Gallagher	1					\$2.28					
31	Gilbert Statten	72			\$5.00							
31	Marcellus Acton	73			5.00							
31	P. de S. Moran	74						8.00				
31	Karl Perlebean	75							\$2.50			
31	C. L. Whittier	76					2.50					
31	Thomas Locke	77							6.00			
31	Wm. B. Page	78							2.50			

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

SALARIES AND WAGES—Continued.

Date.	Furnished by—	Voucher No.	Superintendent, physicians, and general office.	Ward service.	Inside domestic department.	Engineers' department.	Farm and garden, hauling coal, drivers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1890.												
Sept. 20	Pay roll, buildings and grounds.....	224				\$100.00		\$1,661.60				
20	St. Bernard Bros.....	225					\$50.00					
20	D. E. Buckingham.....	226										
20	K. W. Buchanan.....	227										
20	Edward T. Crouch.....	228										
20	J. B. Sampson.....	229	\$1,935.10	\$13.04	\$5.00							
20	Pay roll, support.....	230		1,318.45								
20	do.....	231		1,225.51								
20	do.....	232		1,091.70								
20	do.....	233		223.99								
20	do.....	234		642.30								
20	do.....	235		872.43								
20	do.....	236		1,027.24								
20	do.....	237		625.52								
20	do.....	238		67.60								
20	do.....	239			1,145.34							
20	do.....	240			639.06							
20	do.....	241			495.77							
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20	do.....	367			</							

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1901—Continued.

SALARIES AND WAGES—Continued.

Date.	Furnished by—	Voucher No.	Superintendent, physicians, and general office.	Ward service.	Inside domestic department.	Engineers' department.	Farm and garden, hauling coal, drivers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1900.												
Dec. 31	Pay roll, support.	649								\$606.78		
31	do.	650					\$1,322.55			138.45		
31	do.	651					1,404.86					
31	do.	652				\$1,322.32		\$601.77				
31	do.	653					123.49					
31	do.	654					80.88					
31	do.	655					860.75					
31	do.	656										
1901.												
Jan. 31	Pay roll, repairs.	62										
31	do.	63						1,022.87				
31	do.	741	\$2,589.17	\$410.00				289.01				
31	Pay roll, support.	742		1,897.35								
31	do.	743		1,323.76								
31	do.	744		1,166.25								
31	do.	745		1,014.28								
31	do.	746		859.52								
31	do.	747		294.60								
31	do.	748		1,059.17								
31	do.	749		682.72								
31	do.	750		88.74								
31	do.	751			\$1,259.50							
31	do.	752			678.08							
31	do.	753			488.28							
31	do.	754										
31	do.	755										
31	do.	756										
31	do.	757										
31	do.	758				1,620.65						
31	do.	759					1,331.65					
31	do.	760					1,126.06					
31	do.	761						386.70				
31	do.	762						889.00				
31	do.	763										
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31	do.	869										
31	do.	870										
31	do.	871										
31	do.	872										
31	do.	873										
31	do.	874										

Itemized receipts.

1900. Cash received for—		
July	2. Board of Sandiford M. Waters.....	\$20. 00
	Board of Joseph D. Moulton	570. 00
	9. Board of Francis M. Cook	65. 00
	13. Board of George F. Morrison	25. 00
	18. Board of John Donaldson.....	36. 00
	Board of David S. Rice	16. 00
	19. Board of Isaiah Doughman	36. 00
	Board of Benjamin F. Eagan.....	24. 00
	Board of Charles McCarthy	20. 53
	Board of Carroll Bobart	324. 00
	Special attendance Rollin Perkins	75. 00
	Sale of stock, etc	164. 24
Aug.	2. Board of Sandiford M. Waters.....	25. 00
	Board of M. A. Gilleland	27. 37
	Board of John Hanrahan	24. 00
	15. Burial expenses, Marine-Hospital Service	20. 00
	31. Sale of stock, etc	127. 35
Sept.	3. Board of Sandiford M. Waters.....	20. 00
	12. Board of John M. Ashfield.....	36. 00
	Board of Henry Otte	36. 00
	Board of Ramsey Miller	36. 00
	Board of Joseph D. Moulton	36. 00
	Board of John C. Marquis	36. 00
	Board of George W. Hill	18. 00
	Board of William Randall	36. 00
	Board of David W. Howe	36. 00
	Board of John Hetzler	36. 00
	Board of Morey A. Harrington	36. 00
	Board of George Jacob	36. 00
	Board of D. S. Price	24. 00
	Board of Charles McCarthy	36. 00
	Board of John Acker	36. 00
	Board of David G. Crippin.....	36. 00
	Board of George R. Beach	36. 00
	Board of Carroll Bobart.....	36. 00
	Board of Francis Connelly	36. 00
	Board of Henry Chubb	36. 00
	Board of Michael O'Neil	18. 00
	Board of Philip Scheid	18. 00
	Board of Joel T. Suitt	36. 00
	Board of John W. Schultz	36. 00
	Board of John Donaldson	36. 00
	Board of Charles Emmeleth	36. 00
	Board of John Goodwin	36. 00
	Board of Benjamin F. Eagan	24. 00
	Board of William T. Baldwin	36. 00
	Board of Dennis Sullivan	90. 00
	Board of Herman Shauston	51. 00
	Board of Edward Lake	108. 00
	Board of John Hanrahan	24. 00
	Board of John Little, alias Doherty	24. 00
	Board of John T. Carroll	24. 00
	Board of Andrew J. Clark	42. 00
	Board of Frank M. Cole	72. 00
	Board of Benjamin F. Funderberg	66. 00
	Board of William Wittich	30. 00
	13. Board of Thomas L. Patton	36. 00
	24. Board of Rufus E. Wilcox	65. 00
	28. Board of Orange S. Oakes	168. 00
	Board of John Bellor	36. 00
	Board of John M. Brown	48. 00
	Board of Thomas B. Betts	60. 00
	Board of Thomas Doyle, 2d	86. 00
	Board of George W. McDiarmid	120. 00
	Board of Edward Stanton	36. 00
	Sale of stock, etc	51. 82

1900. Cash received for—		
Oct.	1. Amount brought forward from September.....	\$100. 00
	Board of Sandiford M. Waters.....	20. 00
	Board of Van Wyck Weaver.....	65. 00
	8. Board of Francis M. Cook.....	65. 00
	Board of George R. Beach.....	600. 00
	15. Board of Frank P. Davis.....	65. 00
	Board of Charles K. Yancey.....	91. 00
	17. Board of Julia Daniel.....	200. 00
	19. Board of L. H. Stone.....	211. 00
	22. Special attendance Rollin Perkins.....	75. 00
	Board of William B. Hoff.....	211. 00
	23. Board of Mary E. Webster.....	65. 00
	Board of United States Soldiers' Home patients.....	1, 350. 71
	27. Board of Amon Woodward.....	65. 00
	Sale of stock, etc.....	101. 85
Nov.	1. Funeral expenses, Marine-Hospital Service.....	10. 00
	3. Board of Sandiford M. Waters.....	20. 00
	Board of John G. Hildt.....	195. 00
	Board of William C. Strong.....	91. 00
	19. Board of John A. Cutter.....	58. 50
	Board of Marine-Hospital Service patients.....	1, 657. 93
	24. Board of Adam Reinick.....	36. 00
	30. Board of Frederick Weber.....	48. 00
	Board of Jacob Nohles.....	48. 00
	Board of Robert McCord.....	24. 00
	Sale of stock, etc.....	98. 28
Dec.	4. Board of Thomas Grace.....	50. 00
	Board of Sandiford M. Waters.....	25. 00
	Board of Charles McCarthy.....	36. 00
	Board of Michael O'Neil.....	18. 00
	Board of Adam Reinick.....	18. 00
	Board of Joseph Adams.....	84. 00
	Board of Andrew J. Arnold.....	42. 00
	Board of Charles Emmeleth.....	36. 00
	Board of John Donaldson.....	36. 00
	Board of Thomas L. Patton.....	36. 00
	Board of Henry Otte.....	36. 00
	Board of Jacob Nohles.....	36. 00
	Board of Gerard Nicholas.....	36. 00
	Board of John Bellor.....	36. 00
	Board of George Jacob.....	36. 00
	Board of John M. Brown.....	24. 00
	Board of William Randall.....	36. 00
	Board of John T. Carroll.....	24. 00
	Board of Edward Stanton.....	36. 00
	Board of Thomas Doyle.....	36. 00
	Board of John Thirn.....	18. 00
	Board of George R. Beach.....	36. 00
	Board of John Acker.....	36. 00
	Board of John M. Ashfield.....	36. 00
	Board of Henry Chubb.....	36. 00
	Board of Francis Connelly.....	36. 00
	Board of Joel T. Suitt.....	36. 00
	Board of John W. Schultz.....	36. 00
	Board of Frederick Weber.....	36. 00
	Board of Robert McCord.....	18. 00
	Board of John Hanrahan.....	24. 00
	Board of George W. Hill.....	18. 00
	Board of Philip Scheid.....	18. 00
	Board of Orange S. Oakes.....	24. 00
	6. Board of Benjamin F. Eagan.....	24. 00
	Board of John Little, alias Doherty.....	24. 00
	Board of George W. McDiarmid.....	36. 00
	Board of John C. Marquis.....	36. 00
	Board of Joseph D. Moulton.....	36. 00
	Board of Ramsey Miller.....	36. 00

1900.		Cash received for—	
Dec.	6.	Board of William A. Baldwin	\$36.00
		Board of David G. Crippin	36.00
		Board of John E. Gosnell	18.00
		Board of John O. Mahoney	504.00
		Board of Thomas B. Betts	30.00
		Board of John Hetzler	36.00
		Board of Morey A. Harrington	36.00
		Board of John M. Cook	30.00
		Board of David W. Howe	36.00
		Board of John Goodwin	36.00
		Board of Frank B. Hayes	130.00
		Board of Herman Shauston	51.00
		Board of Dennis Sullivan	90.00
		Board of William Wittich	30.00
		Board of Frank M. Cole	72.00
		Board of Andrew J. Clark	42.00
		Board of Franklin P. Davis	216.00
		Board of Benjamin F. Funderberg	66.00
		Board of Edward Lake	108.00
		Board of Sebastian Hoffman	72.00
		Board of George H. Lourey	4.29
		Board of John A. Cutter	173.79
		Board of Julia Daniel	60.00
		Board of John L. Diggins	50.00
		Board of Sandy Bryan	48.00
		Board of Matthias Geho	108.00
		Board of Richard Glassie	108.00
	28.	Board of Estelle Sample	30.00
		Sale of stock, etc	165.66
1901.			
Jan.	2.	Board of Van Wyck Weaver	65.00
		Board of Rufus E. Wilcox	65.00
	4.	Board of United States Soldiers' Home patients	1,337.14
		Board of John M. Reed	24.00
		Board of Batthasai Deis	12.00
		Board of Joseph Bruestle	24.00
		Board of Sevia Crevia	24.00
		Board of William Wittich	402.63
	7.	Board of Francis M. Cook	65.00
	8.	Board of Frederick Schoenell	24.00
		Board of Sandiford M. Waters	25.00
		Board of Amon Woodward	65.00
	12.	Board of Alice B. King	195.00
	14.	Board of William B. Hoff	211.00
		Board of John D. Black	24.00
	16.	Board of George F. Morrison	25.00
		Board of Charles K. Yancey	91.00
	22.	Board of Bryan Hall	130.00
	24.	Board of James H. Orr	180.00
		Sale of stock, etc	421.41
Feb.	1.	Board of Sandiford M. Waters	20.00
	2.	Special attendance Rollin Perkins	75.00
	8.	Board of Martha A. Gilleland	26.46
	9.	Board of Marine-Hospital Service patients	1,782.00
		Board of Robert J. McClintock	17.00
	12.	Board of Clark A. Medlin	414.00
	14.	Board of Mary E. Webster	65.00
	16.	Joseph V. Murray	20.71
	28.	Sale of stock, etc	335.06
Mar.	4.	Board of Lucy Catches Emery	51.00
		Board of John Woodruff	182.00
		Board of Bob-tail Bear	182.00
		Board of F. W. Peake	25.00
		Board of Chu-e-rah-rah-he-kah	182.00
		Board of Joseph D. Marshall	182.00
	5.	Board of Sandiford M. Waters	20.00
	7.	Board of John E. Gosnell	18.00

1901.	Cash received for—	
Mar. 11.	Board of John M. Ashfield	\$36.00
	Board of Adam Reinick	18.00
	Board of Michael O'Neil	18.00
	Board of John Hanrahan	24.00
	Board of John T. Carroll	24.00
	Board of Charles Emmeleth	36.00
	Board of Leonard H. Aldridge	36.00
	Board of Joseph Adams	36.00
	Board of John Acker	36.00
	Board of John M. Reed	36.00
	Board of Thomas L. Patton	36.00
	Board of Henry Otte	36.00
	Board of Philip Scheid	18.00
	Board of Clark A. Medlin	18.00
	Board of Thomas Doyle	36.00
	Board of John W. Shultz	36.00
	Board of Joel T. Suitt	36.00
	Board of Edward Stanton	36.00
	Board of William Randall	36.00
	Board of George R. Beach	36.00
	Board of Benjamin F. Eagan	24.00
	Board of Charles McCarthy	36.00
	Board of John Donaldson	36.00
	Board of George W. Hill	18.00
	Board of Matthias Geho	36.00
	Board of Sebastian Hoffman	24.00
	Board of Gerard Nicholas	36.00
	Board of Jacob Nohles	36.00
	Board of George W. McDiarmid	36.00
	Board of John Goodwin	36.00
	Board of John Hetzler	36.00
	Board of Robert McCord	18.00
	Board of John Little, <i>alias</i> Doherty	24.00
	Board of Francis Connelly	36.00
	Board of Henry Chubb	36.00
	Board of David G. Crippin	36.00
	Board of Joseph Brustle	36.00
	Board of John Bellor	36.00
	Board of Andrew J. Arnold	18.00
	Board of Frederick Weber	36.00
	Board of John M. Cook	18.00
	Board of David W. Howe	36.00
	Board of Richard W. Glassie	36.00
	Board of Ramsey Miller	36.00
	Board of Joseph D. Moulton	36.00
	Board of Batthasai Deis	18.00
	Board of John M. Brown	24.00
	Board of Sandy Bryan	24.00
	Board of Herman Shauston	51.00
	Board of William Wittich	30.00
	Board of John O. Mahoney	36.00
	Board of Morey A. Harrington	36.00
	Board of George Jacob	36.00
	Board of Robert McClintock	51.00
	Board of Sevia Crevia	36.00
	Board of John D. Black	36.00
	Board of Andrew J. Clark	42.00
	Board of John Thirn	18.00
	Board of John C. Marquis	36.00
	Board of Samuel A. Champlain	648.00
16.	Board of John L. Diggins	50.00
27.	Sale of stock, etc	1,352.27
Apr. 1.	Board of Sandiford M. Waters	20.00
3.	Board of Van Wyck Weaver	65.00
4.	Board of Samuel A. Champlain	540.00

1901. Cash received for—		
Apr.	5. Board of Mary R. Overton.....	\$130.00
	Board of United States Soldiers' Home patients.....	1,393.57
	8. Board of Francis M. Cook.....	65.00
	10. Board of William F. Clark.....	20.00
	13. Board of Amon Woodward.....	65.00
	15. Board of Elijah Baynard.....	36.00
	16. Board of William B. Moncure.....	32.50
	17. Board of Rufus E. Wilcox.....	65.00
	19. Board of George F. Morrison.....	25.00
	22. Board of Marguerite Sawyer.....	115.00
	24. Board of John A. Cutter.....	130.00
	Board of Isador Behrends.....	10.00
	25. Board of Charles K. Yancey.....	91.00
	30. Board of Pierre or Peter Peyron.....	1,225.66
	Sale of stock, etc.....	306.21
May	1. Board of Samuel A. Champlain.....	108.00
	2. Board of Sandiford M. Waters.....	25.00
	9. Special attendance Rollin Perkins.....	75.00
	Board of Marine-Hospital Service patients.....	1,774.28
	10. Board of Florence Williams.....	20.00
	14. Board of Mary Holton.....	10.00
	18. Board of William H. Shorb.....	17.00
	Board of Francis M. Hull.....	12.00
	Board of Albert E. Segswith.....	63.00
	21. Board of Ellen Downey.....	65.00
	Board of Marguerite Sawyer.....	40.00
	25. Board of L. H. Stone.....	422.00
	28. Board of Mary E. Webster.....	65.00
	29. Board of Mary Holton.....	24.29
	Sale of stock, etc.....	529.07
June	5. Board of Sandiford M. Waters.....	25.00
	6. Board of Fannie Enterline.....	20.00
	Board of Sebastian Hoffman.....	24.00
	Board of John Acker.....	36.00
	Board of James Adams.....	36.00
	Board of Leonard H. Aldridge.....	36.00
	Board of George R. Beach.....	36.00
	Board of John Bellor.....	36.00
	Board of Thomas Doyle, 2d.....	36.00
	Board of Charles Emmeleth.....	36.00
	Board of Sandy Brown.....	24.00
	Board of Michael O'Neil.....	18.00
	Board of Robert McClintock.....	51.00
	Board of William Wittich.....	30.00
	Board of Philip Scheid.....	18.00
	Board of Adam Reinick.....	18.00
	Board of Charles McCarthy.....	36.00
	Board of Joseph D. Moulton.....	36.00
	Board of John C. Marquis.....	36.00
	Board of John O. Mahoney.....	36.00
	Board of George W. McDiarmid.....	36.00
	Board of Frederick Weber.....	36.00
	Board of John M. Cook.....	18.00
	Board of Andrew J. Clark.....	42.00
	Board of John Little, alias Doherty.....	24.00
	Board of Frank M. Cole.....	72.00
	Board of George W. Hill.....	18.00
	Board of Batthassi Deis.....	18.00
	Board of Francis M. Hull.....	18.00
	Board of John Thirn.....	18.00
	Board of John E. Gosnell.....	18.00
	Board of Benjamin F. Eagan.....	24.00
	Board of Herman Shauston.....	51.00
	Board of William H. Shorb.....	25.50
	Board of Benjamin F. Funderberg.....	68.00
	Board of George A. Reider.....	12.00

1901.	Cash received for--	
June 6	Board of Gustav A. Shotwell.....	\$24. 00
	Board of Joel T. Suitt	36. 00
	Board of John Hanrahan	24. 00
	Board of John D. Black	36. 00
	Board of George D. Hallock.....	36. 00
	Board of John Donaldson.....	36. 00
	Board of John Hetzler.....	36. 00
	Board of Thomas L. Patton.....	36. 00
	Board of John M. Reed.....	36. 00
	Board of William Randall.....	36. 00
	Board of John W. Schultz.....	36. 00
	Board of John Goodwin.....	36. 00
	Board of Matthias Geho.....	36. 00
	Board of Richard W. Glassie.....	36. 00
	Board of Henry Chubb.....	36. 00
	Board of Joseph Bruestle.....	36. 00
	Board of Servia Crevia.....	36. 00
	Board of David G. Crippin.....	36. 00
	Board of David W. Howe.....	36. 00
	Board of Henry Otte.....	36. 00
	Board of Jacob Nohles.....	36. 00
	Board of Gerard Nicholas.....	36. 00
	Board of Ramsey Miller.....	36. 00
	Board of George Jacobs.....	36. 00
	Board of Elijah Baynard.....	36. 00
	Board of Andrew J. Arnold.....	18. 00
	Board of Clark A. Medlin.....	18. 00
	Board of John M. Brown.....	24. 00
	Board of Morey A. Harrington.....	36. 00
7.	Board of Thomas Grace.....	25. 00
14.	Board of Alice B. King.....	130. 00
17.	Board of William F. Clark.....	44. 29
	Board of Rufus E. Wilcox.....	65. 00
	Board of Bryan H. Hall.....	130. 00
	Board of John G. Hildt.....	195. 00
	Board of Susan Linkins.....	260. 00
	Board of Julia Daniel.....	130. 00
	Board of William L. Beveridge.....	63. 57
	Board of S. C. Borrows.....	1, 300. 00
	Board of Benjamin F. Ellis.....	260. 00
	Board of William B. Hoff.....	422. 00
	Board of Florence Williams.....	37. 14
	Sale of stock, etc.....	661. 54
29.	Board of R. Chambless.....	107. 14
	Board of Daniel Rees.....	65. 00
	Board of Van Wyck Weaver.....	65. 00
	Board of Margueritte Sawyer.....	25. 00
	Board of Fannie Enterline.....	22. 14
	Board of Frank Ralowski.....	260. 00
	Board of Sandiford M. Waters.....	20. 00
	Board of Thomas L. Swann.....	364. 00
	Board of United States Soldiers' Home patients.....	1, 600. 00
	Board of Mary R. Overton.....	130. 00
	Board of John A. Cutter.....	65. 00
	Board of Wilson Miller.....	235. 71
	Board of William C. Strong.....	473. 00
	Board of Amon Woodward.....	65. 00
	Board of Marine-Hospital Service patients.....	1, 742. 14
	Board of Lula Smith.....	206. 43
	Board of Charles K. Yancey.....	92. 00
	Sale of stock, etc.....	68. 92

42, 994. 10

RULES GOVERNING THE SUPERINTENDENT OF THE GOVERNMENT HOSPITAL FOR THE INSANE IN THE WITHDRAWAL OF FUNDS FROM THE UNITED STATES TREASURY, DEPOSITED BY THE SUPERINTENDENT AS AGENT, BELONGING TO INMATES OF THE HOSPITAL, THE SAME BEING UNDER ACT APPROVED JULY 1, 1898.

1. The superintendent shall give a separate bond as agent in the sum of five thousand dollars, with sureties satisfactory to the Secretary of the Interior, for the faithful custody and disbursement of all funds received by him as agent.

2. He shall keep in books, subject at all times to the inspection of the proper officials, a separate account with each patient having money on deposit, showing amount received, expended, and the balance of each.

3. He shall deposit in the United States Treasury, in his name as agent, not later than at the end of each month, all funds now in his hands or which may hereafter be intrusted to him by or for the use of patients, which shall be kept as a separate account.

4. He is authorized to draw therefrom, on his order, from time to time, for the use of such patients, not to exceed for any one patient the amount intrusted to the superintendent on account of such patient.

5. He shall, on or before the fifteenth of each month, render a certified statement (in duplicate) to the Secretary of the Interior showing the state of this fund at the close of the preceding month, together with a detailed statement giving the individual amounts received and expended on account of each patient, the duplicate statement to be forwarded to the Auditor of the Treasury for the Interior Department for verification and file in his office.

6. He may, subject to the limitations of the law, draw, as such agent, within the penalty of his bond, such sums as in his judgment may be necessary for the use of individual patients, either by check for minor payments or a check stating on the margin on whose individual account it is drawn, either as a final payment or as a major advance on his account on deposit.

Respectfully submitted.

W. W. GODDING, *Superintendent.*

DEPARTMENT OF THE INTERIOR,
September 26, 1898.

Approved.

C. N. BLISS, *Secretary.*

REPORT OF A. B. RICHARDSON, AGENT FOR PRIVATE FUNDS OF PATIENTS.

I have the honor to submit the following as my first annual report as agent for private funds of patients to June 30, 1901, viz:

1900.			
July	1. By amount brought forward.....	\$83,030.82	
	31. By amount received during the month.....	6,886.26	
	To amount expended during the month.....		\$4,177.25
Aug.	31. By amount received during the month.....	2,825.31	
	To amount expended during the month.....		3,625.85
Sept.	30. By amount received during the month.....	4,020.14	
	To amount expended during the month.....		3,157.29
Oct.	31. By amount received during the month.....	4,780.43	
	To amount expended during the month.....		3,747.40
Nov.	30. By amount received during the month.....	3,276.21	
	To amount expended during the month.....		4,343.36
Dec.	31. By amount received during the month.....	4,330.46	
	To amount expended during the month.....		2,401.80

1901.			
Jan. 31.	By amount received during the month.....	\$10,515.40	
	To amount expended during the month.....		\$2,998.84
Feb. 28.	By amount received during the month.....	3,482.19	
	To amount expended during the month.....		2,781.89
Mar. 31.	By amount received during the month.....	5,886.21	
	To amount expended during the month.....		3,206.11
Apr. 30.	By amount received during the month.....	2,748.41	
	To amount expended during the month.....		3,772.16
May 31.	By amount received during the month.....	2,342.70	
	To amount expended during the month.....		3,750.78
June 30.	By amount received during the month.....	5,085.83	
	To amount expended during the month.....		3,698.05
	To balance		97,549.59
		<hr/>	
		139,210.37	139,210.37
	Balance	97,549.59	

A. B. RICHARDSON, *Agent.*

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REPORT OF THE PATHOLOGICAL DEPARTMENT.

In compliance with the directions of the Superintendent the pathological report and supplement to the annual report of the Government Hospital for the Insane, 1901, is herewith presented.

In accordance with the wishes of the Superintendent the pathological work has been directed more than heretofore to the investigation of disease by clinico-pathological methods. With this in view the laboratory has been equipped with complete modern apparatus and an able assistant, Dr. C. DeWeese, late of the Maryland Hospital for the Insane, has been placed in charge of this work.

Although our equipment has not long been complete, much valuable work in this line has been done. Six hundred urinalyses have been made, the urine being examined in all new admissions and in all cases when required as an aid to diagnosis. One hundred and eighty-four blood examinations for the malarial parasite have been made, with positive result in 107. The sputum has been examined in 57 cases, the bacillus tuberculosis being found in 29 cases and the pneumococcus in 2 cases. Work has also been done in stomach analysis, Widal's reaction in typhoid, and in special clinical work as required. Reports of these examinations are filed with the case records and copies are kept for reference in the laboratory.

The branch of morbid anatomy and pathological histology has received a new impetus by the purchase of more complete equipment for this work. This branch of the work has also been brought into closer relation to the clinical study of disease by the synopses of the clinical histories required to be sent with every case for post-mortem examination and by the facilities offered to the pathologist for study of the cases clinically. Autopsies are now required in every case when permissible, and synopses of the post-mortem records are at once sent to the attending physicians for preservation with the case records. During the year ended June 30, 1901, 109 post-mortems examinations were made.

The photographic department, in charge of Mr. W. M. Keeler, is doing valuable work. Photographs are taken of all patients on admission, and have been taken of former patients for some time, the collection now numbering several thousand. In addition to this, all pathological specimens of value are photographed and preserved as a part of the post-mortem records.

The collection of museum specimens is gradually increasing in number. At least 1,000 specimens of value are now in the museum or stored away for want of room.

With many thanks for his kind interest in the work, and for his generous support and encouragement, this report and the accompanying pathological supplement are respectfully submitted to the Superintendent.

I. W. BLACKBURN, M. D.,
Pathologist.

GOVERNMENT HOSPITAL FOR THE INSANE,
September 30, 1901.

A STUDY OF FOUR INTRACRANIAL TUMORS.

DESCRIPTION OF DRAWINGS.

FIG. 1.—*Case 1486*.—This drawing shows a field from the ordinary structure of the tumor, stained in hematoxylin. The shapes of the cells were outlined carefully with the aid of the camera lucida; the round cells or nuclei were outlined in the same way and subsequently finished with pen shading. The pen stippling is used in these drawings merely as a method of shading; under moderate amplification the large branched and polymorphous glia cells have almost homogeneous clear cell bodies. Two large blood vessels with their contents are shown at the upper part of the drawing. The vessels have thick fibrous walls and frequently show accumulations of round cells in their vicinity.

FIG. 2.—*Case 1486*.—This section shows a portion of the same tumor containing a small area of cancer-like alveoli containing cells epithelial in character arranged in characteristic groups. These cells stain deeper than the gliomatous cells and are more granular. On the left is shown the true gliomatous tissue separated from the alveoli by a band of condensed and fibrous tissue, but evidently of the same character as the tumor.

FIG. 3.—*Case 1486*.—This drawing shows the general structure of the tumor. It is seen to be composed mainly of spindle-cell elements arranged in bands and whorls. Several of the latter are shown with a few round, clear cells in their centers, visible by careful focusing. Occasionally groups of spindle cells are cut transversely, when the nuclei appear round. Two blood vessels with fibrous walls containing slender elongated nuclei are shown in the field. The stippling used for shading gives a granular appearance which is not present with low amplification.

FIG. 4.—*Case 1486*.—This drawing was taken from the line of junction between the dura and the tumor to show the gradual transition from membrane to tumor tissue. Usually the tumor structure contained many large blood vessels at the junction with the dura, and the adjoining dural vessels were engorged.

FIG. 5.—*Case 1503*.—Section showing the general structure of endothelial sarcoma of the dura mater. The drawing shows numerous cell-groups consisting of round and polygonal cells in the centers, spindle-shaped elements at the periphery, and delicate spindle-celled tissue separating them. A number of blood vessels with thick hyaline walls and scarcely distinguishable lumen are shown cut in various directions. At the lower part of the drawing a portion of one of the very large hyaline cell-masses is shown. These bodies show concentric striation, the nuclei of degenerated cells, and sometimes calcification. To ordinary magnification the hyaline material is homogeneous; the stippling is used for shading.

FIG. 6.—*Case 1503*.—Higher power view of the same tumor showing details of structure. Portions of several cell-groups are shown with the delicate strands of spindle-cell tissue between them. An attempt has been made to get the effect of the nearly clear cell protoplasm by fine stippling, and the difficulty of distinguishing the outlines of the round central cells is shown by faint outlines of some of the cell bodies. Four hyaline spherules of small size are shown, and two blood vessels with thickened walls lying in a small quantity of fibrous tissue.

FIGS. 7-11.—*Case 1516*.—These drawings show the various stages of hyaline transformation of the cell spherules from the concentrically arranged cell-groups to the hyaline spherules, which could hardly be distinguished as of cellular origin.

FIG. 12.—*Case 1516*.—This drawing shows a field from the same tumor composed of closely set cell-spherules of small size, partly transformed into hyaline globes. The small spherules are separated by a little spindle-celled tissue cut in every direction. The partly hyaline spherules still show the nuclei of the cells arranged concentrically as in Fig. 11.

FIG. 13.—*Case 1516*.—In this drawing are shown a number of hyaline spherules and three longitudinal sections of hyaline bands or rods such as were found in some parts of this growth. These rods of hyaline material are evidently of cell origin, as they sometimes show remains of elongated nuclei and are commonly found in the midst of bands of spindle cells. In some tumors of this class hyaline degeneration may affect any of the constituents of the tumor, and hyaline material may even be found in minute spherules and droplets apparently not of cell origin.

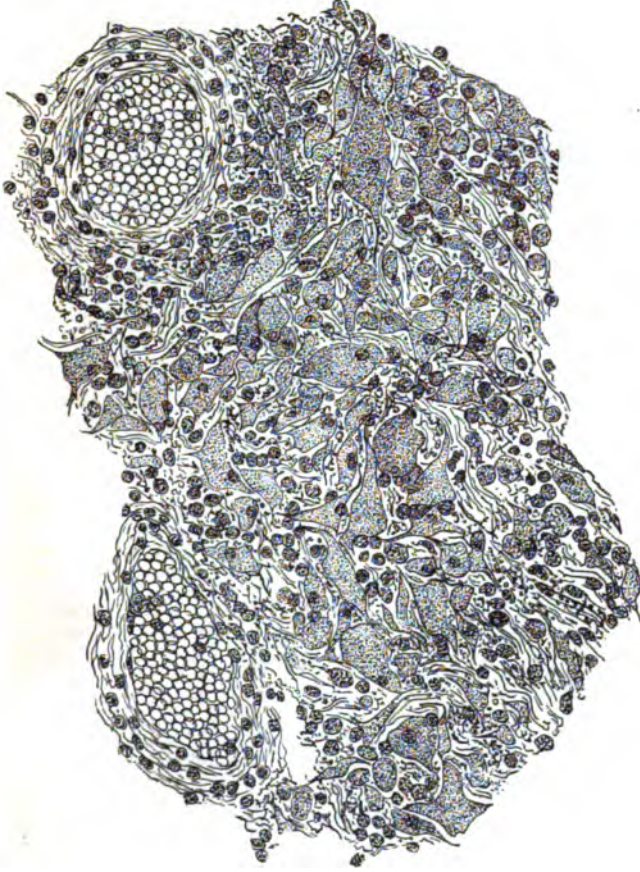


FIG. 1. CASE 1426.—SECTION OF GLIOMA, SHOWING THE VARIOUS SHAPES AND SIZES OF THE GLIOMATOUS CELLS, AND TWO LARGE BLOOD VESSELS WITH THICK FIBROUS WALLS, SURROUNDED BY MANY NUCLEI.

In some parts of the section large, clear, round cells are numerous. X 800. (Reduced $\frac{1}{2}$.)



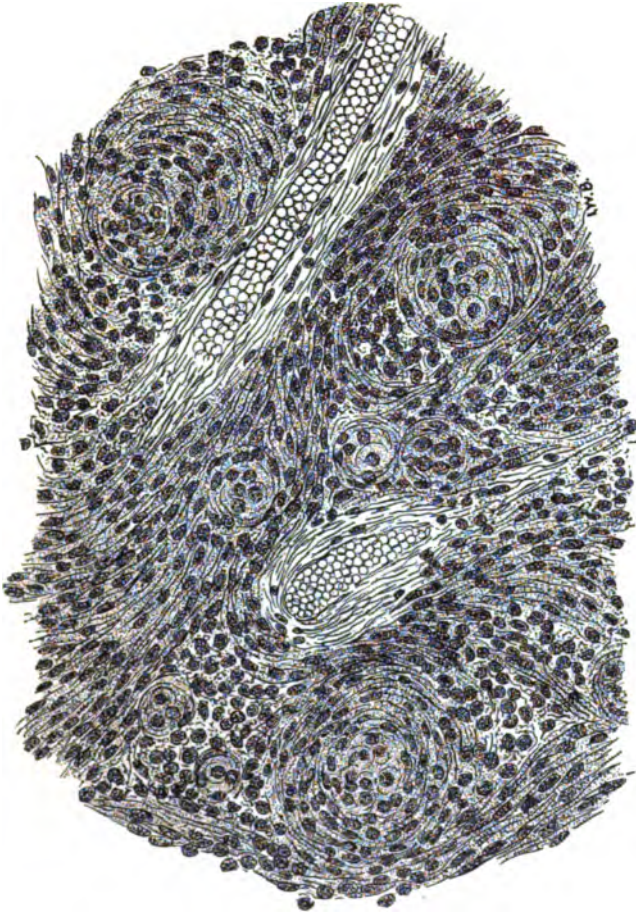


FIG. 3. CASE 1486.—SECTION FROM SPINDLE-CELLED ENDOTHELIAL SARCOMA OF DURA MATER, SHOWING THE GENERAL STRUCTURE OF THE GROWTH, SEVERAL CONCENTRICALLY ARRANGED CELL MASSES, AND TWO BLOOD VESSELS WITH FIBROUS WALLS RUNNING IN LONGITUDINALLY CUT CELL GROUPS.

The fine stippling is used for shading; the cell bodies do not show granulation with this simplification.
X 500. (Reduced $\frac{1}{4}$.)



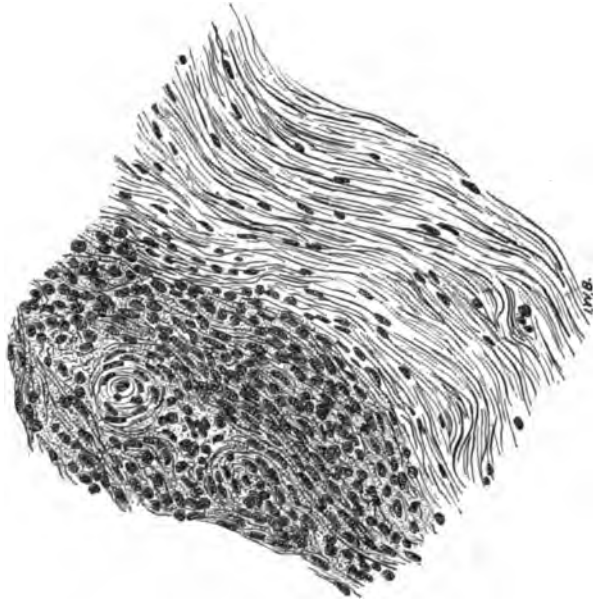
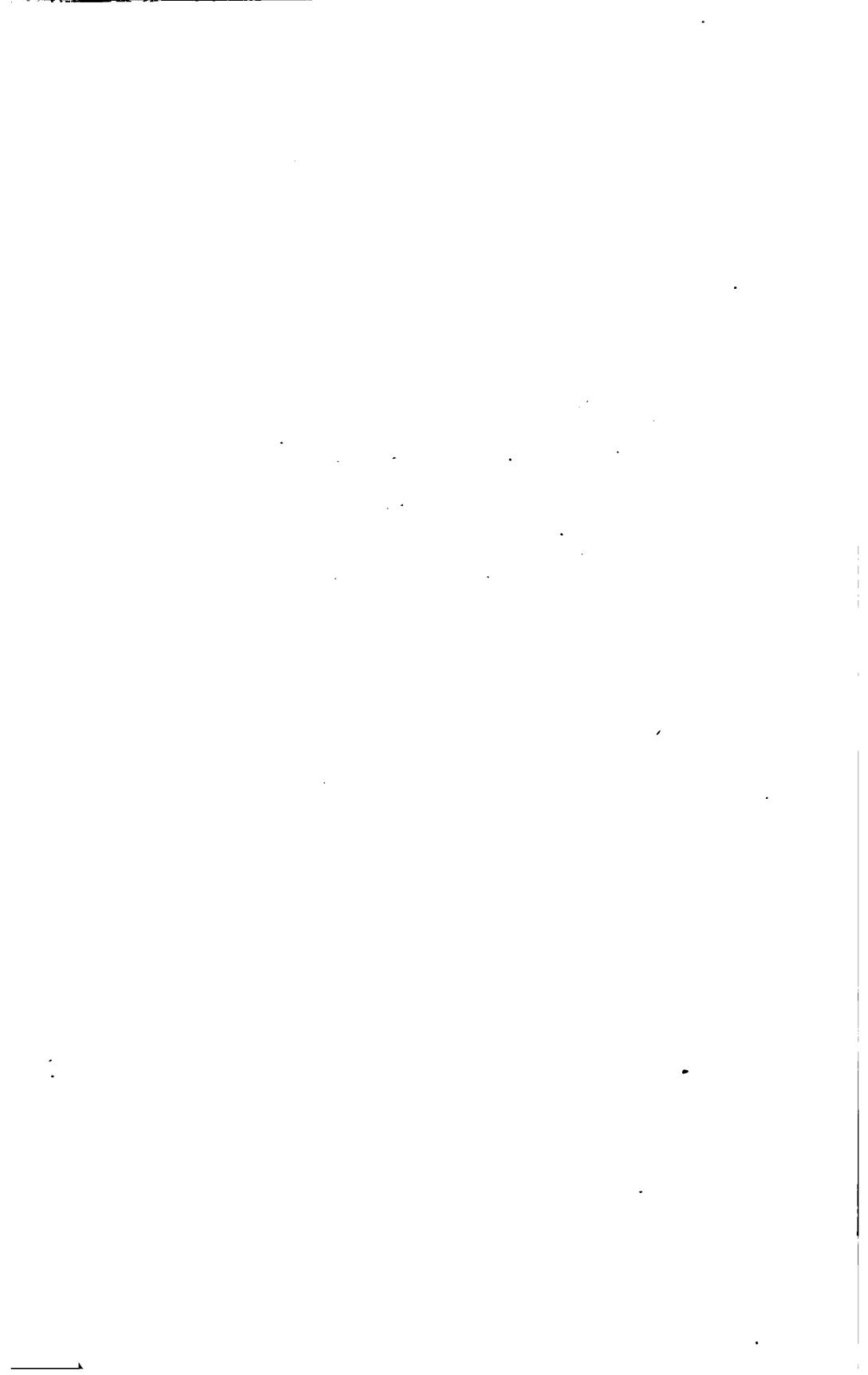


FIG. 4. Case 1436.—SPINDLE-CELLED ENDOTHELIAL SARCOMA OF DURA MATER. SECTION FROM THE JUNCTION OF THE GROWTH WITH THE INNER LAYER OF THE MEMBRANE, SHOWING THE COMPLETE UNION OF THE TWO.

At the surface of the dura the tumor was usually quite vascular. $\times 300$. (Reduced $\frac{1}{2}$.)



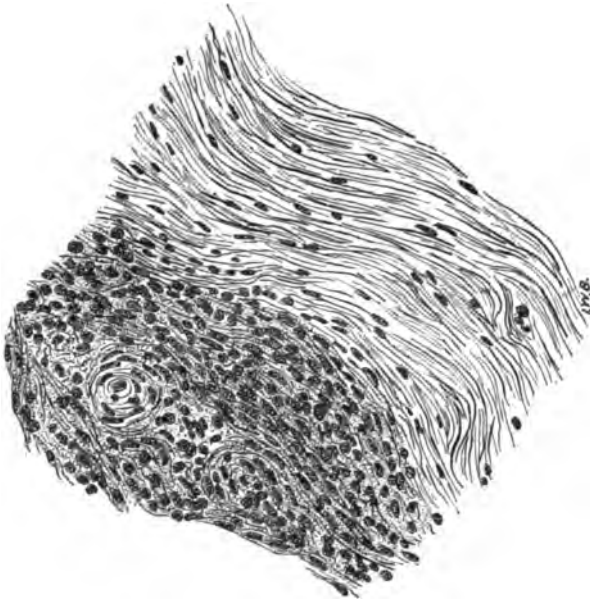
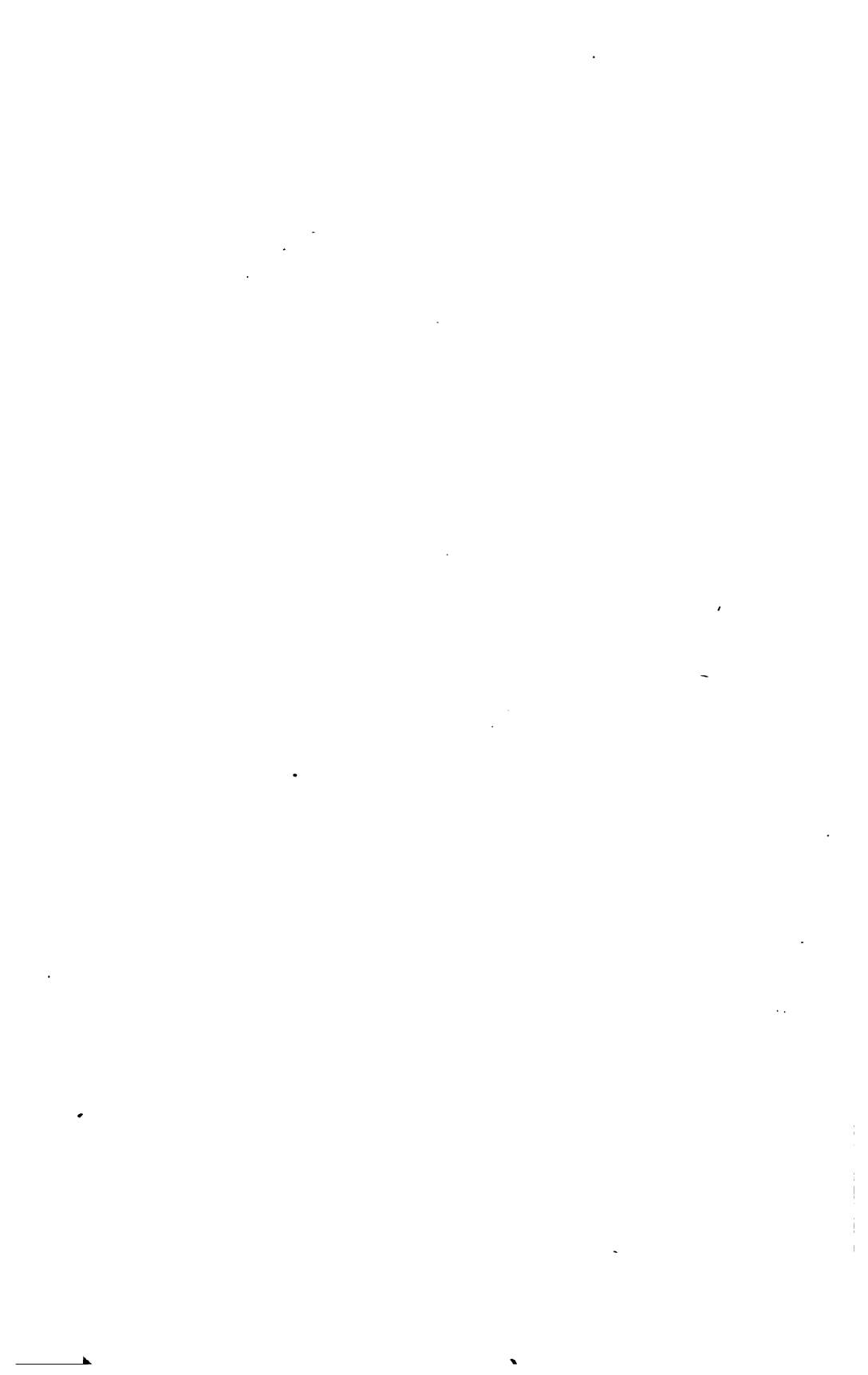


FIG. 4. CASE 1436.—SPINDLE-CELLED ENDOTHELIAL SARCOMA OF DURA MATER. SECTION FROM THE JUNCTION OF THE GROWTH WITH THE INNER LAYER OF THE MEMBRANE, SHOWING THE COMPLETE UNION OF THE TWO.

At the surface of the dura the tumor was usually quite vascular. $\times 300$. (Reduced $\frac{1}{2}$.)



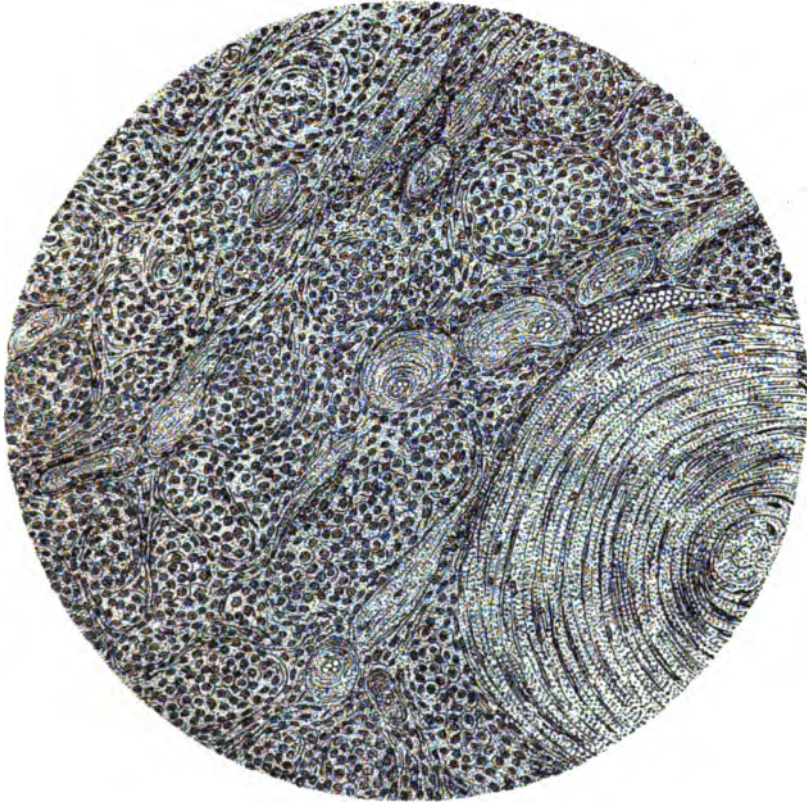


FIG. 5. CASE 1503.—ENDOTHELIAL SARCOMA OF THE DURA MATER. SECTION SHOWING THE GENERAL STRUCTURE OF THE GROWTH. Many cell whorls are shown separated by spindle-cell bands, and with endothelioid cells in the central portions. Numerous vessels with thick hyaline walls are shown, and a portion of a very large hyaline spherule. X 200. (Reduced $\frac{1}{4}$.)

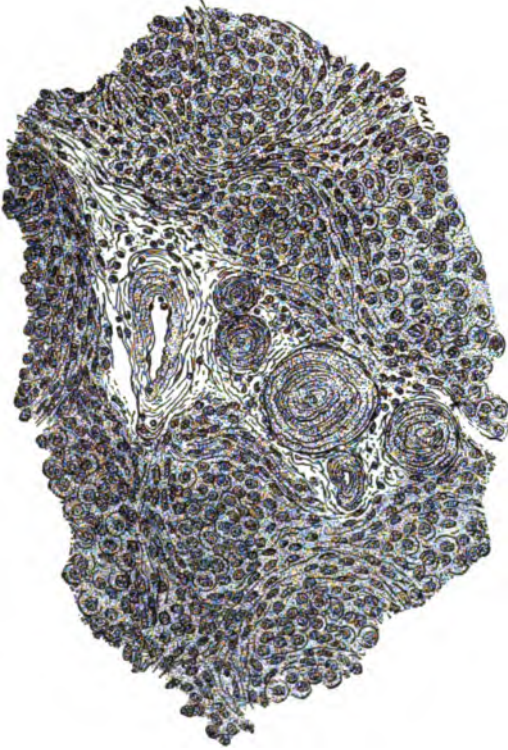
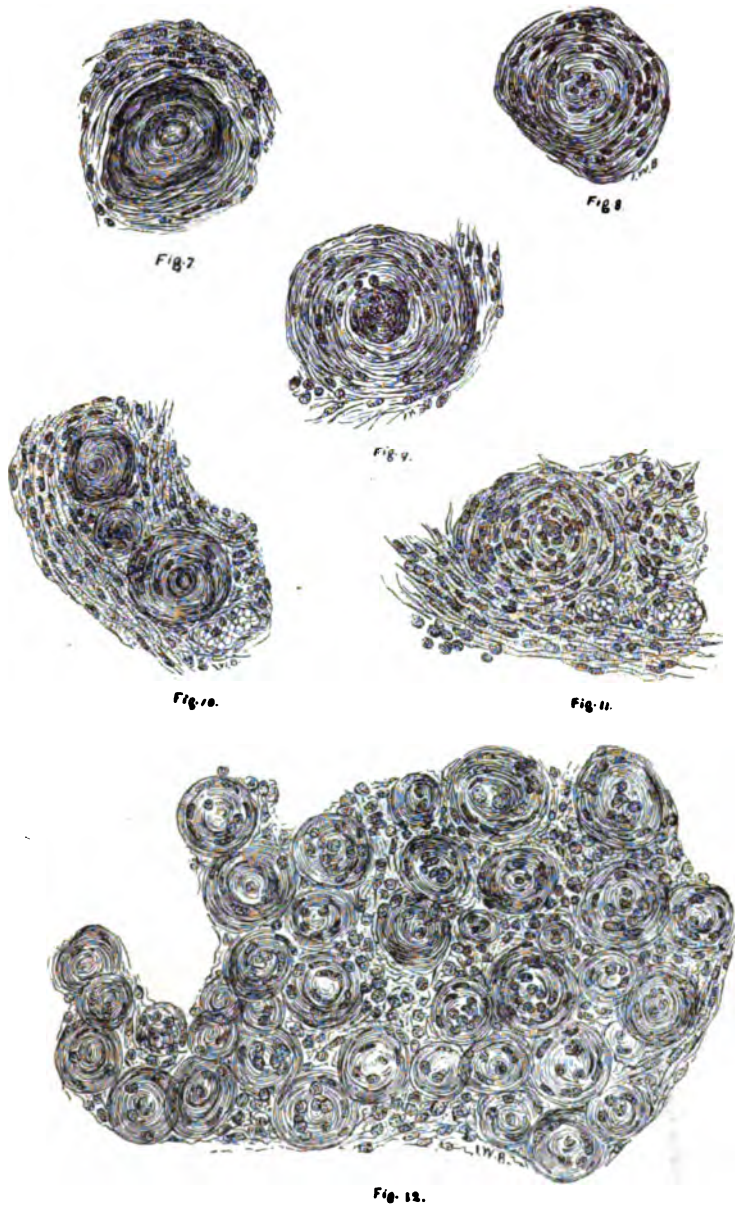


FIG. 6. CASE 1503.—ENDOTHELIAL SARCOMA OF THE DURA MATER.

The drawing shows several cell groups separated by delicate bands of spindle-cell tissue, giving an alveolar appearance to the tissue. The central cells are seen to be round and endothelioid, the peripheral layers are spindle shaped, and in the cell bands the spindles are very delicate and the nuclei elongated. Four hyaline spherules and two thick-walled vessels are shown in the center of the drawing. $\times 300$. (Reduced $\frac{1}{2}$.)

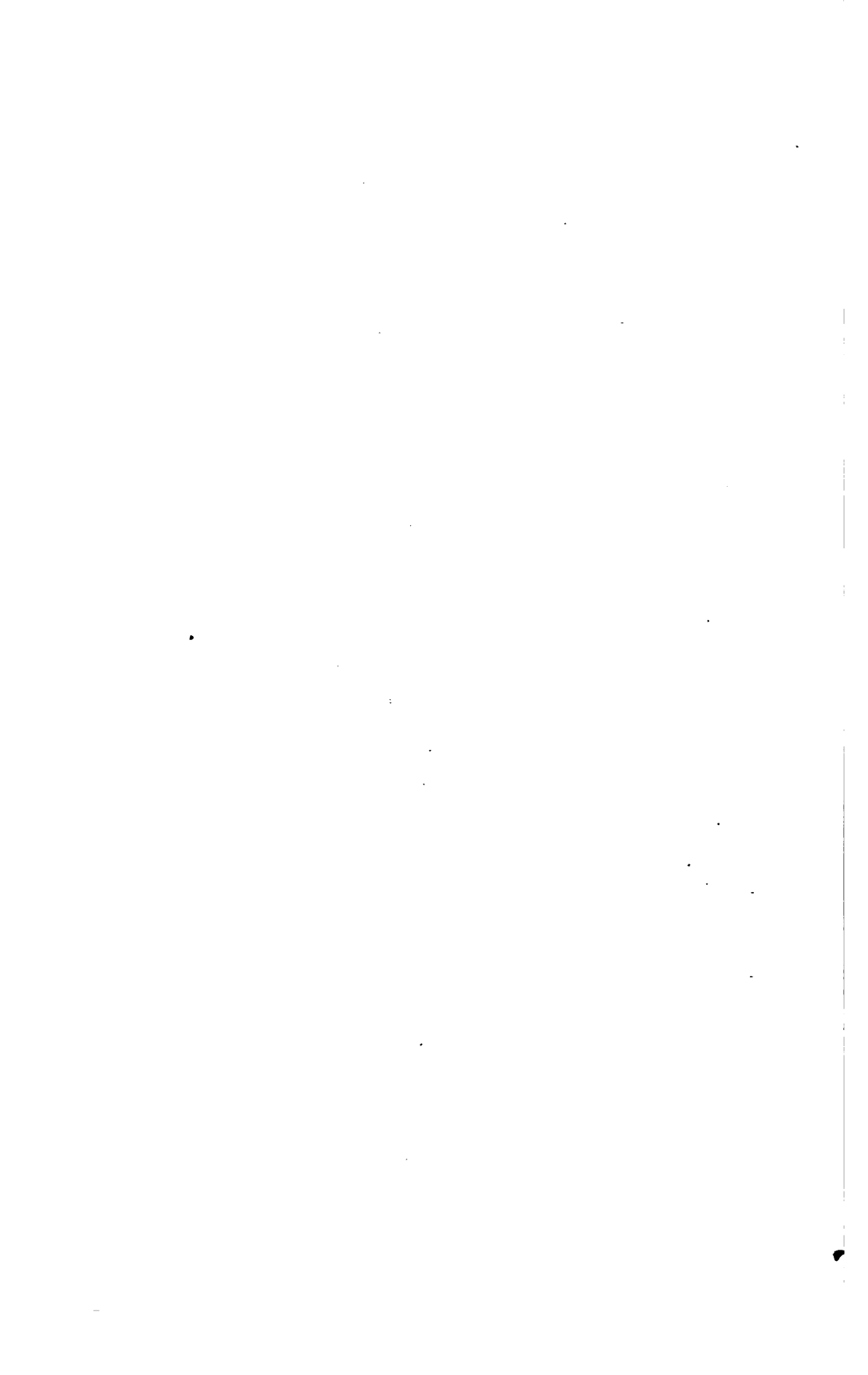




FIGS. 7-12 CASE 1516.—SECTIONS FROM SPINDLE-CELLED ENDOTHELIAL SARCOMA OF DURA MATER, SHOWING THE VARIOUS STAGES IN THE HYALINE TRANSFORMATION OF THE CELL SPHERULES INTO HYALINE GLOBES.

Fig. 12 shows the peculiar cell grouping which would develop into the so-called "psammoma" of some pathologists. $\times 300$. (Reduced $\frac{1}{2}$.)





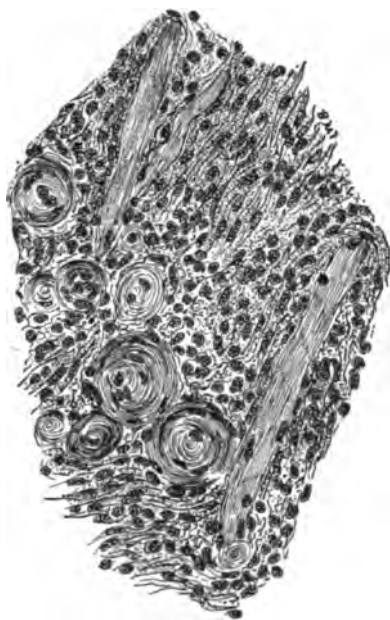
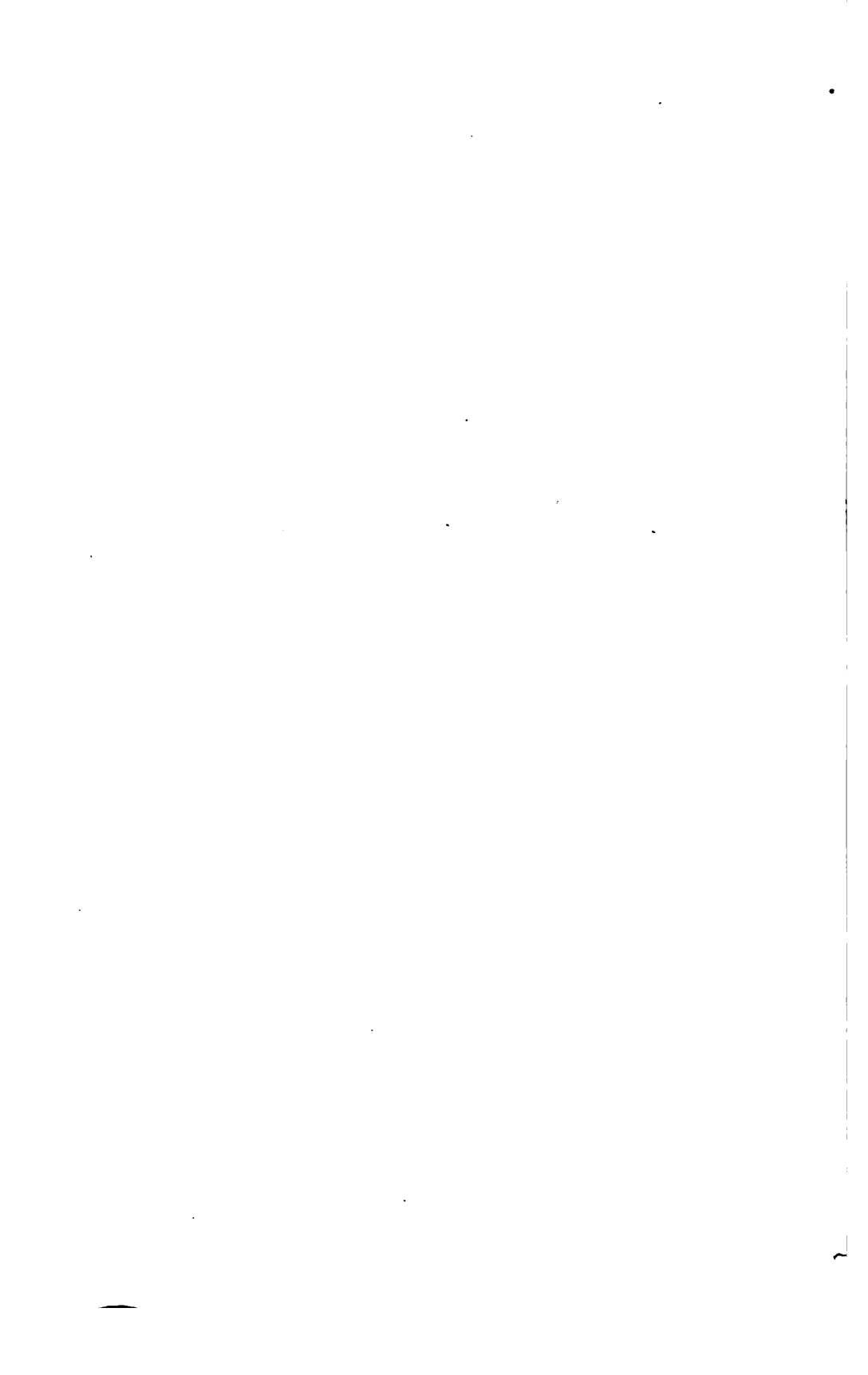


FIG. 13. CASE 1516.—SECTION OF SPINDLE-CELLED ENDOTHELIAL SARCOMA OF DURA MATER, SHOWING SEVERAL HYALINE SPHERULES STILL RETAINING THE NUCLEI OF CELLS, AND HYALINE BANDS IN THE MIDST OF LONGITUDINALLY-CUT SPINDLE CELLS.

One of the hyaline rods is cut transversely at one end, showing an oval outline. X 300. (Reduced $\frac{1}{2}$.)



A STUDY OF FOUR INTRACRANIAL TUMORS.

The following four cases of intracranial tumor are presented as a continuation of the writer's studies of the tumors of the brain and membranes occurring in the cases of mental disease examined post-mortem, now numbering twenty-seven cases of tumor in 1,550 autopsies.

The number is not large, but the subject is of peculiar interest, these growths being in several of the cases the direct cause of the mental disease and death; while in some this cause could have been removed had the presence of the growth been detected during the early stages of development. In several of the number the growths were not essentially malignant, and those accessible could have been removed without danger of recurrence.

The class of tumors growing from the inner surface of the dura mater do harm by mechanically invading the brain; they are sharply circumscribed; when invading regions of known function they may be located; and when located they ought to be removed, if accessible, before they reach great size, which they may do if allowed to grow, some of my cases having reached at least 2 inches in average diameter.

Unfortunately for the surgical treatment of such cases, these tumors grow slowly, and the brain may accommodate itself to the gradual local interference until the growth reaches considerable size and has by its general effects seriously damaged the organ.

Three of the present tumors belong to the class of dural growths commonly known as endotheliomata, but which on account of their structure, supposed cytogenesis, and histogenesis, I have called spindle-celled endothelial sarcomata. Of the twenty-seven intracranial growths studied by the writer sixteen belong to this class, and in almost every case the origin from the dura was easily demonstrated.

Though these tumors belong to the sarcomata they present many peculiarities by which they may in most cases be easily distinguished. They commonly, if not always, arise from the dura as small, rounded, wart-like growths intimately but not firmly attached to the membrane as they are friable and soft; and when mechanically torn from the surface leave it somewhat roughened but usually intact. It is this, I think, which has led to error as to the origin of some growths of this character, the slight attachment to the seat of origin being mistaken for inflammatory adhesions.

In the course of their growth these tumors penetrate the brain, at first making a slight impression in the surface without destruction of tissue. As they increase in size they push the pia mater and cortex in front, usually become incorporated with the pia, and when of considerable size produce destructive softening of the cortex and white matter in the vicinity.

Sometimes both membranes and cortex are destroyed to such a degree that the growth seems to directly invade the white matter. These large growths lying within the brain, and with a relatively small dural surface, may easily be mistaken for tumors of the pia or brain substance.

It is possible, and is so claimed, that similar tumors may originate from the soft membranes, and, indeed, in one or two instances this would have been the easier explanation of the origin of the growths; as a rule the dural origin is easily determined.

These tumors are usually solitary, but in one or two cases more than one nodule was found. They may occur at any part of the dura, as no local cause seems to be necessary. The bone is sometimes slightly roughened beneath the dural seat of the tumor, and in two or three cases slight elevation of the inner table was noted.

As to the histogenesis and structure of these tumors, little need be added to express the writer's views. They are supposed to arise from the endothelium of the surface, and lymph spaces of the dura mater, and possibly of the pia arachnoid. The cells in some tumors preserve the round or polymorphous forms to a greater or less degree, though there is always some spindle-celled tissue. Other growths are composed almost exclusively of spindle cells. In all these tumors there is a tendency for the cells to arrange themselves in whorls or concentrically arranged cell groups separated from each other by bands of longitudinally disposed spindle cells. Sometimes large cell groups, consisting of cell whorls and bands, are divided into lobules by delicate spindle-cell tissue in the transition to fibrous tissue. In such cases the main vascular supply is found in these septa. The concentrically arranged cell spherules are sometimes composed almost entirely of spindle cells, with perhaps a few rounded cells as

a nucleus. Others are mainly made up of endothelioid cells, with a few layers of spindle-shaped elements at the periphery.

These tumors are peculiarly liable to hyaline degeneration. It may affect the cells, the vessel walls, and even the connective tissue present. Affecting the concentrically disposed cell groups, it produces the peculiar hyaline spherules for which these tumors are noted; when affecting the cell bands and connective tissue it forms the hyaline rods or lanceolate deposits found in some tumors; in the vessel walls it results in great thickening and even in obliteration of the lumen. Later on, when the hyaline spherules and lanceolate deposits have become calcified, such tumors have been improperly called psammomata.

Connective tissue is found in these tumors in variable quantity. In some of the tumors the connective tissue septa which separate the cellular lobules are broad and the tissue completely fibrous; in some the fibrous septa are very delicate and seems to be composed mainly of elongated, delicate spindles. The vessel walls are usually composed of fibrous tissue, and there is commonly a few fibrils in the vicinity of vessels of all sizes. As these growths unquestionably belong to the connective-tissue group of tumors, it is reasonable to conclude that the connective tissue is also of abnormal development and an essential part of these tumors.

One of the tumors belongs to the very interesting class of growths, the gliomata. The growth consists of cells of almost every conceivable size and shape, lying in a fibrillated matrix composed mainly of the processes of branched cells. Some of the cells are very large, with prominent nuclei, much resembling the nerve cells, others are polymorphous, spindle shaped, round, and some with several nuclei. Many small round cells are scattered throughout the growth, and are found in large groups in the vicinity of the blood vessels. The blood vessels are numerous and have thick fibrous walls, in some cases somewhat hyaline. The prominence of these probably mesodermic elements suggests that in glioma we may have a compound tissue tumor, and not simply an ectodermic neoplasm.

An interesting feature of this growth was the presence in one part of the tumor of a small collection of cancer-like alveoli, indistinguishable from ordinary carcinoma. The combination of true epithelial structure with this tumor, now that the ectodermic origin of the glia cells is established, would not be remarkable. The nodule was not secondary, as no other like growth existed. (See note to case 1426.)

This tumor was of large size and produced the usual characteristic symptoms of intracranial growth; the others were of small size and produced no definite symptoms.

To illustrate the details of structure of these tumors thirteen microscopical drawings have been prepared. They all represent actual fields, sketched with the aid of the camera lucida and finished with pen and ink.

CASE 1426.

Tumor of brain involving the left frontal lobe.—W. C. G.; aged, 45; male; widower; sailor; nativity, Pennsylvania. Mental disease, chronic dementia from tumor of the brain.

In this case the dementia was too extreme to obtain subjective symptoms. He had many of the objective signs of organic disease of brain, but tumor was not diagnosed. The usual symptoms of brain tumor observed were paralysis of the right side extending to the tongue and pharynx, convulsive seizures, and the extreme dementia. Delusions, if present, were obscured by the mental failure. Death occurred in a convulsive attack of epileptiform character.

Autopsy eight hours after death. Body fairly well nourished; some lividity of dependent parts of body, head, and neck.

Cranium.—Skull symmetrical; antero-posterior diameter, 7 inches; transverse, 5½ inches. The dura mater was not adherent to the bone; the membrane was tightly stretched over the brain, and the subdural space was dry and the surfaces were sticky; no adhesions to the brain were noted.

Brain: Weight of right hemisphere, 540 grams; left hemisphere, 640 grams; cerebellum, pons, and medulla, 160 grams. The convolutions were greatly flattened against the dura mater, especially over the left side, and the left frontal portion was pressed over against the falx, making a deep impression of the latter against the median surface. Examination showed a large growth situated in the left frontal lobe, evident by increase of the size of this part and by enlargement of the small pial vessels over it, though it was situated beneath the cortex and had the same feel as the normal brain on palpation. Incision showed a large, soft, grayish-red tumor mass in the frontal lobe anterior to the line of the precentral fissure. Both central convolutions were strongly pressed backward, the middle and inferior frontal convolutions were pressed downward and outward, and the first frontal was almost destroyed by the encroachment of the growth.



CASE 1426.—SECTION OF BRAIN SHOWING GLIOMA OF LEFT FRONTAL LOBE.

a Portion of cyst in the interior. The dotted line indicates the apparent boundary of the tumor.



Incision of the tumor about the middle showed that the growth was probably a glioma or glio-sarcoma, originating from the brain itself; it had no definite boundaries, seeming to end gradually in the normal brain surrounding it. The central portions were considerably degenerated and cystic; the peripheral parts more firm and redder from greater vascularity. No portion of the new growth seemed to actually reach the pia mater, though the cortex of part of the first frontal convolution was extremely thin. The growth reached the roof of the lateral ventricle and extended slightly into the corpus callosum. The extreme diameters of the growth were probably 2 inches antero-posteriorly and about 1½ inches in transverse diameter. In the vicinity of the tumor the brain tissue was, as is usually the case, abnormally soft; in other parts the brain substance was oedematous but no gross lesions were found. The arteries were normal to the unaided eye.

Thorax.—Lungs were oedematous and congested; bronchi filled with frothy mucopurulent secretion. Weight of right, 490 grams; left, 550 grams.

Heart: Weight, 340 grams. Valves of right side normal except some enlargement of the tricuspid orifice. The left valves were not diseased, but the mitral orifice was slightly enlarged; aorta normal.

Abdomen.—The spleen weighed 390 grams; capsule adherent to surrounding parts; parenchyma soft and dark.

Kidneys: Weight of right, 160 grams; left, 140 grams. Some adhesion of the capsules, and the surfaces were granular and contained a few cysts. The cortex was about the usual thickness. The urinary bladder was normal.

Liver: Weight 194 grams. The organ contained a little more blood than usual, but was otherwise normal. The gall bladder contained a large number of calculi.

Stomach and intestines normal.

MICROSCOPICAL EXAMINATION.

The tumor was found to be made up of cells of almost every conceivable size and shape, lying in a matrix apparently composed of delicate fibrils. The predominating kind of cells was the branched, or asteroid elements which are usual in tumors of this type. They varied greatly in size and shape and in the character and number of their branches. Some showed clear homogeneous cell-bodies and some were faintly granular; nuclei were sometimes present, sometimes the cells were so cut that the nuclei were not seen; occasionally cells with several nuclei were found. Where the tissue was dense the shape of the cells seemed to be somewhat influenced by mutual pressure, but in the looser parts of the growth finely branched cells were common, and many large, round, clear, epithelioid cells were found. Small lymphoid cells or nuclei, which stained deeper than the glia cells, were found in great numbers everywhere, sometimes collected in large groups, especially in the vicinity of blood vessels.

The fibrillated matrix seemed to be made up, at least in part, of the branches of the gliomatous cells, though it was apparent that fibrous tissue was also present. This was especially evident in the vicinity of the blood vessels, and the vessels themselves often showed thick walls composed of nucleated fibrous tissue, apparently continuous with loose fibrous tissue in the vicinity. Numerous blood vessels of large size were found in all parts of the growth; they were uniformly filled with blood cells and sometimes contained groups of leucocytes. Some blood channels of rather large size showed very imperfectly developed walls; in none of the vessels could muscle cells be demonstrated in the walls.

A peculiar feature was found in one of the tissue-blocks sectioned. A small area was found containing groups of cells of epithelial type, arranged in alveoli, exactly resembling cancer. No other cell groups of this kind were found nor was there any tendency toward this arrangement in any other part of the growth. In Fig. 2, I have represented this structure at the right hand side of the drawing. This structure is seen to be separated from the true gliomatous tissue on the left by a band of somewhat more condensed and fibrous tissue, and the alveolar walls are composed of the same. In Fig. 1, the ordinary structure of the tumor is represented; no alveolar arrangement was found in the true gliomatous tissue.¹

The brain was not generally examined. Near the boundary of the tumor the blood vessels were dilated, filled with blood, and in the vicinity of some were accumulations of nuclei, and small hemorrhages were common. The boundaries of the tumor were indefinite; there appeared to be a gradual increase of nuclei or the neuroglia cells as the tumor structure was approached; these began to show elongated

¹ My friend, Dr. E. L. Opie, suggests that the epithelial-like cell groups may be inclusions, within the glioma, of ventricular epithelium. This is quite probable, as at one place the growth had reached the lining of the left lateral ventricle.

cell bodies, which gradually showed as large, irregular tumor cells, and the matrix became fibrillated.

In the uninvaded brain tissue the glia cells were not numerous by ordinary stains. A few were found presenting the usual appearances of these elements. There was no increase of the usual spider cells in the vicinity of the tumor. The nerve cells showed degenerative changes and some enlargement of the pericellular spaces in the portions adjoining the tumor.

The lungs were not examined with the microscope. The spleen showed some chronic passive hyperæmia. Kidneys contained a decided increase of connective tissue. Liver showed slight passive hyperæmia.

CASE 1436.

Tumor of the dura mater at base of brain.—J. C.; aged, 64; married; blacksmith; late soldier; nativity, New York. Mental disease, chronic dementia; duration, over one year.

In this case there were no symptoms of intracranial tumor, the growth being small and having not encroached upon important structures. There was a general paralytic condition which was fully accounted for by the organic disease of the brain found post-mortem. The patient was much demented and could not well describe his symptoms, but so far as could be observed had no pain or disturbance of special senses. He died suddenly, with symptoms of apoplexy, probably induced by the organic disease of the brain.

Autopsy twenty-two hours after death. Body large and well developed; head and neck deeply congested; hydrocele of right side.

Cranium.—Skull symmetrical, of usual shape and thickness. Antero-posterior diameter, 7½ inches; transverse, 5½ inches; sutures visible externally, indistinct in inner table; arterial depressions well marked.

The dura mater was adherent to the bone, of usual thickness, and contained a small osteophyte in the falx.

At the base, resting upon the anterior clinoid process, was a small dural tumor about half an inch in diameter and about one-fourth of an inch in thickness. The growth was firmly adherent to the dura, incorporated with it, and evidently had originated from the membrane. The bone was slightly roughened beneath the tumor, but though the growth was in close relation to the carotid artery, optic nerve, and cavernous sinus, it had not pressed upon those structures. The tumor was grayish-red in color, somewhat rough on the surface, and to the naked eye resembled the common form of dural endothelioma.

Brain: Weight of left hemisphere, 470 grams; right hemisphere, 550 grams; cerebellum, pons, and medulla, 200 grams. The tumor had made no depression in the brain and was not adherent to it. The vessels were much engorged; subdural fluid tinged with blood; arteries not diseased. The convolutions were generally shrunken and on the left side were extensive softenings, involving the anterior and lower part of the frontal lobe, the anterior portion of the temporal lobe, and the whole island of Reil. No lesions in the interior nor on the right side. The tissue was yellowish, soft, and oedematous, and the perivascular spaces were enlarged. Cerebellum, pons, and medulla were in the same general condition as the cerebrum, but showed no gross lesions.

Thorax.—The lungs were deeply pigmented with carbon and hypostatic posteriorly. Weight of the left, 550 grams; right, 650 grams.

Heart: Weight, 470 grams. Organ flabby and soft; auricles and ventricles dilated. Right valves not diseased; tricuspid valve relatively incompetent. Aortic valves were slightly thickened and adherent to each other, but probably fairly competent. Mitral valve normal.

Abdomen.—Spleen weighed 90 grams. The capsule was wrinkled pulp, soft.

Kidneys: Weight of each, 200 grams. Capsules slightly adherent; surfaces granular and showed numerous small cysts; cortex thin; pyramids small, and the pelvic fat was increased. Though much shrunken, the weight was not below the normal, the organs having been originally large.

Liver: Weight, 1,190 grams. The tissue had been normal, but was softened by decomposition.

Other organs presented nothing of importance.

MICROSCOPICAL EXAMINATION.

The tumor was found to belong to the class commonly called dural endotheliomata, but which perhaps are better designated by the term spindle-celled endothelial sarcomata. The main mass of the growth was made up of delicate spindle cells, with oval granular nuclei closely applied to each other, so that in the dense masses individual cells were hard to distinguish, and the structure of the tissue was mainly

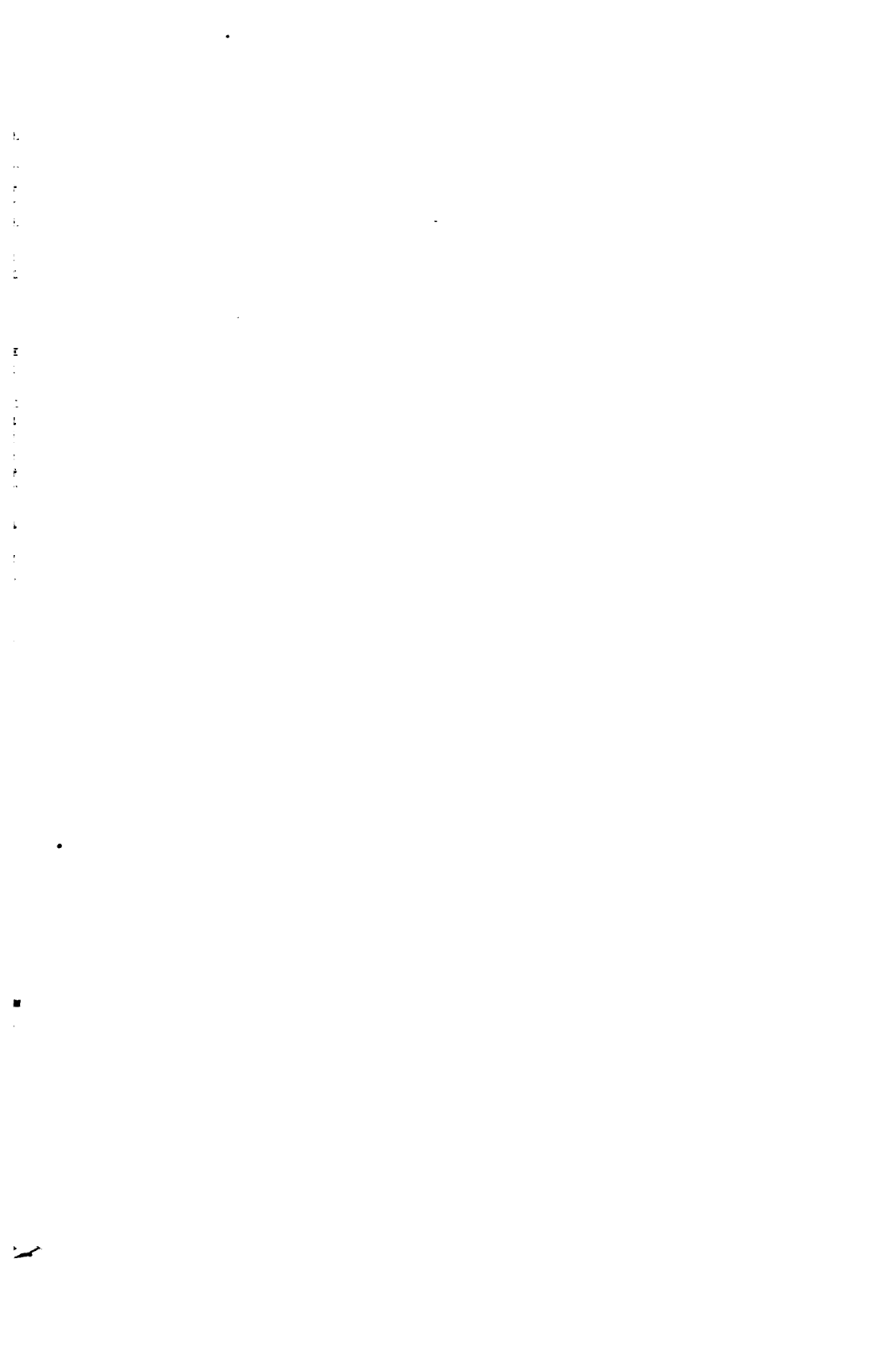
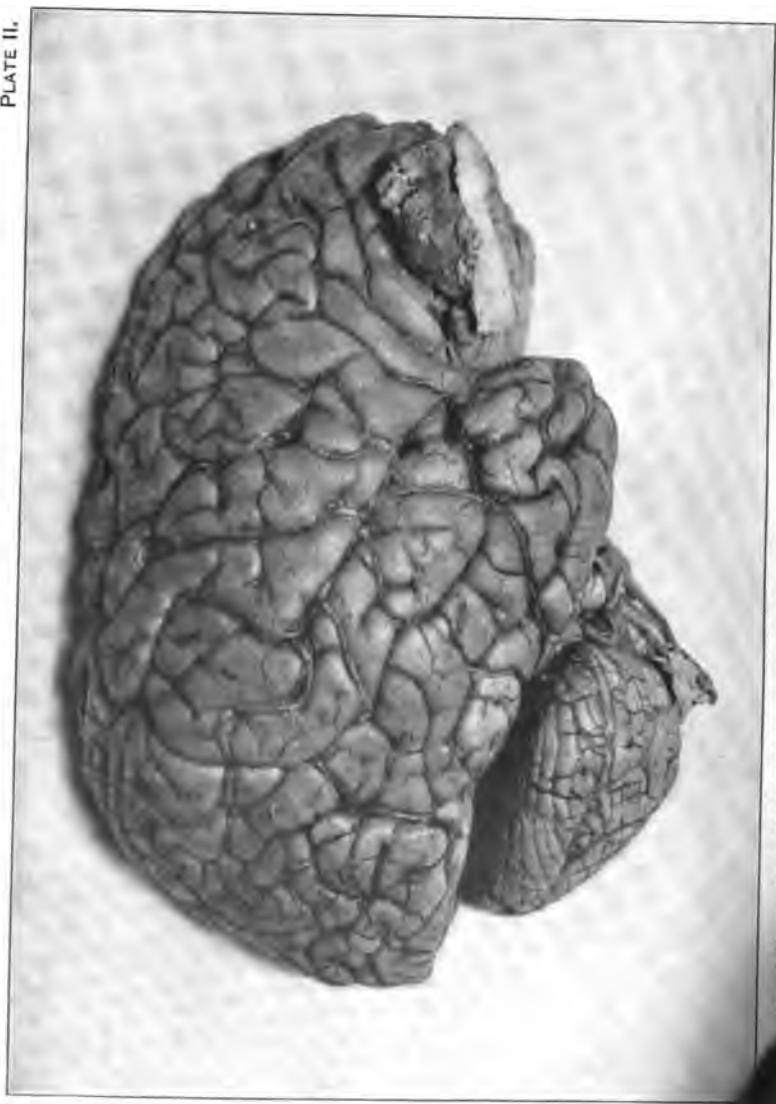


PLATE II.



CASE 1503.—SPINDLE-CELLED ENDOTHELIAL SARCOMA OF THE DURA MATER PENETRATING THE BRAIN.

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OF
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recognized by the direction and shape of the nuclei. The cells were arranged in wavy bands running in every direction and in concentrically arranged groups, which are a characteristic feature in tumors of this class. These cell spherules in this growth seemed to consist of many layers of closely applied spindle cells surrounding a central mass consisting of a few endothelioid cells sometimes more or less obscured by hyaline degeneration. The nuclei of these central cells were round and granular, and the cell bodies, when distinguishable, were large, clear, and rounded when not closely pressed together. A feature of this growth was the separation of the cell structure into lobules by thin strands of fibrous tissue apparently modified from the spindle cells. In these bands the blood vessels were usually found, showing more or less distinct fibrous walls. The larger vessels were found in the fibrous tissue, but blood channels were also found occasionally in the cell bands, in this situation having imperfectly developed walls. Some parts of the growth were unusually vascular for tumors of this class. This was especially noticeable along the line of junction with the dura. No perfectly walled blood vessels were found in any part of the growth, and none of any kind in the dense cell-whorls.

Hyaline transformation of the cell groups was not found to any extent. Very few hyaline globes, so commonly found in this class of tumors, were discovered in the present growth, though the central cells of some of the cell spherules were hard to stain and apparently becoming hyaline. A large tumor of the dura mater, exactly similar to this one in structure, was reported in the supplement to the report of 1894, illustrated by Plate I and Fig. 5, Case 774.

The microscopic study of the kidneys showed advanced interstitial nephritis. Examination of the other organs was not deemed important.

CASE 1503.

Tumor of dura mater penetrating the brain.—A. W., aged 66; married; laborer; colored; nativity, South Carolina. Mental disease, chronic epileptic dementia; duration, ten years.

In this case there were no symptoms indicating tumor of brain except the dementia and the convulsions; the latter being distinctly epileptic led to the diagnosis of epilepsy, and the accompanying dementia was attributed to this disease. Headache was not complained of; vomiting was not observed, and though ophthalmoscopic examination was not made, there was no special affection of sight. The situation of the tumor invasion being in advance of all motor areas, paralyses were not to be expected. The exact relation of the growth to the epilepsy and dementia is, of course, hard to determine, but it is reasonable to conclude that the penetration of the brain by the tumor might act as a traumatic cause of the convulsive seizures. The length of time the disease existed would agree well with the supposed slow growth of tumors of this class.

Immediate cause of death was cystitis and pyelo-nephritis, brought about by enlargement of the middle lobe of the prostate gland.

Age, 66 years. Muscular system well developed; body fairly well developed. Diameter of the skull, 7½ inches; transverse diameter, 7½ inches; thickness, 1½ inches; shape symmetrical; sutures indistinct; dura mater not abnormally so for the age of the patient.

Weight, 140 lbs. There was no sign of intracranial tension, and the dura mater was separated by œdema. A tumor of dural origin was situated at the lower and anterior part of the right frontal lobe.

Weight of brain, 1,200 gms. There was no sign of intracranial tension, and the dura mater was separated by œdema. A tumor of dural origin was situated at the lower and anterior part of the right frontal lobe.

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incompetency of the tricuspid valve. Aortic valves were somewhat thickened and calcareous; mitral valve slightly thickened at its free margins. The auricles were dilated; the left ventricle hypertrophied; superficial arteries tortuous and rigid; aorta corrugated and dilated at the arch, and at the lower part atheromatous and calcified in patches.

Abdomen.—The spleen weighed 220 grams, was enlarged, moderately firm, and congested.

Kidneys: Weight of each, 180 grams. The left was swollen, œdematous, and the cortex was streaked with blood and contained some small pus deposits. The right was in the same general condition, but no pus had yet formed. The pelves and ureters showed acute inflammation and contained muco-pus.

The bladder showed intense inflammation and the walls were ulcerated and in part covered by a dirty gray and hemorrhagic false membrane. The middle portion of the prostate gland was greatly enlarged and had acted as a valve-like obstruction to the urethral orifice. This prominent portion of the gland had been injured by the efforts at catheterization and was the seat of some hemorrhagic extravasation within.

The liver weighed 1,600 grams. Tissue was normal.

Other organs showed nothing of special importance.

MICROSCOPICAL EXAMINATION.

The tumor proved to be an endothelial sarcoma of the spindle-celled type, but with a marked tendency to preservation of the endothelial type of cells in the central portions of the cell masses, while those of the outer portions were spindle-shaped. The central cells when distinguishable were seen to be round and polygonal, with round nuclei; the outer cells had oval and elongated nuclei, and the individual cells were hard to distinguish except in very thin sections and when mechanically separated. A feature of the growth was the separation of the cell groups, large and small, by delicate bands of connective tissue apparently developed from spindle cells and containing slender elongated nuclei. The blood vessels were mainly found in this connective tissue, though a few small simple channels were found among the cells. The connective tissue strands and the contained blood vessels were evidently as essential a part of the growth as the cell groups themselves. In such growths as this the two unquestionably bear the same relation to each other as in ordinary alveolar sarcoma, both being neoplastic in origin. Hyaline degeneration was advanced in this growth, involving the cell groups of all shapes and sizes, the globular cell spherules, and the blood vessels. Some masses of hyaline change involved cell groups large enough to be seen with the naked eye. In these the arrangement of the cells could still be recognized by the remains of cells and flattened nuclei. In some of the hyaline masses occasional small blood vessels, still containing corpuscles, were found among the persistent cell nuclei. Many of the globular concentrically striated hyaline bodies were found in all parts of the growth. These we now believe represent a later stage of degeneration in spherical cell groups, though all traces of cells may be lost.

The blood vessels of all sizes showed advanced hyaline change. Some were nearly obliterated, showing on section an extremely small lumen containing a few blood cells. Transverse sections of completely degenerated vessels in which no lumen could be seen much resembled the small hyaline spherules. Longitudinal and oblique sections of degenerated vessels could usually be distinguished as such by the remains of the lumen containing red corpuscles. The hyaline substance into which the elements of the growth were transformed was perfectly homogeneous when complete change had occurred; but in most of the cell groups thus altered faint concentric or wavy lines indicated the grouping of the elements, and in the hyaline vessel walls extremely faint striations could usually be seen. (In the pen drawings fine stippling had to be used to represent the hyaline material, but in the sections it showed no granulations with medium powers.) In some parts of the tumor hyaline change had extended to nearly all the elements, and calcification had taken place in many of the masses. It is this later change which gives the gritty feel to the tissue and has caused the term "psammoma" to be improperly used for these tumors.

In Fig. 15 I have given the general structure of the growth with hyaline cell groups and blood vessels. Fig. 16 shows some of the details under a higher amplification.

CASE 1516.

Tumor of the dura mater penetrating the brain.—J. M.; aged 78; widower; late soldier; nativity, France. Mental disease, senile dementia; duration, unknown.

The symptoms in this case had probably no reference to the intracranial growth. It was small, pressed slightly upon the brain, produced no appreciable intracranial

tension, and encroached upon no important structure. The patient was feeble and bedridden, but there was no paralysis. The mental symptoms were dementia with considerable maniacal excitement, and much of the time he was apparently unconscious of his surroundings. Death seemed to be due to exhaustion from maniacal excitement and general senile enfeeblement.

Autopsy seven hours after death. Body of average size; well developed; dependent parts of body livid. Direct inguinal hernia of right side.

Cranium.—Skull thin and porous; shape, symmetrical; antero-posterior diameter, 7½ inches; transverse, 5½ inches. Dura mater was adherent to the bone, and on the basal portion on the right side was a small tumor which pressed inward upon the brain at the entrance of the fissure of Sylvius. The growth had made but a slight depression in the brain and there was no appreciable increase of intracranial pressure. The growth had the usual appearance of dural tumors of this class; it was moderately hard, and firmly adherent to the dura. No adhesions to the brain were present and the cortex was apparently uninjured.

Brain: Weight, 1,200 grams. The convolutions were generally shrunken; arteries at the base atheromatous; ventricles enlarged; brain tissue soft and oedematous. No gross lesions were found in any part of brain. Left optic nerve atrophied, corresponding with loss of sight of the eye.

Thorax.—Lungs emphysematous, pigmented, and contained a few fibrous nodules. Weight of the right lung, 400 grams; left, 300 grams.

Heart: Weight, 350 grams. The valves of right side were normal, except some increase of the size of the tricuspid orifice. The mitral was a little thickened at the margins; orifice normal; aortic valves calcareous at their attached margins and somewhat pouched. Aorta and coronary arteries atheromatous.

Abdomen.—Spleen soft and dark; capsule thickened and wrinkled; weight, 100 grams.

Kidneys: Weight of right, 120 grams; left, 160 grams. The capsules were adherent; surfaces granular and cystic; cortex thin; pyramids atrophied. Bladder hypertrophied and sacculated from obstruction of the urethra by enlargement of the prostate gland.

Liver: Weight, 950 grams. Organ rather small and somewhat congested.

Other organs showed nothing of importance.

MICROSCOPIC EXAMINATION.

The tumor proved to be a spindle-celled endothelial sarcoma. The structure consisted of spindle cells with oval and elongated nuclei and clear or faintly granular cell bodies, closely applied to each other, with no perceptible intercellular substance in the denser masses. In some parts of the growth the cells were more loosely arranged, and faint indications of fibrillated intercellular tissue could be seen. The cells were arranged in beautifully curved bands, running in every direction and in concentrically arranged cell spherules, which had frequently been changed to pearly hyaline bodies, so characteristic of this form of growth. Hyaline spherules of medium size were very common, and occasionally whole fields were found consisting of closely set cell spherules undergoing hyaline change, as shown in Fig. 13. In addition to these hyaline cell nests, there were in some parts of the tumor numerous hyaline rods lying among the cells and often intermingled with each other and with the cells in an indescribable way. As a rule, these rods seemed to be found in bundles of cells running in the same direction, and were evidently due to hyaline transformation of cells, shown by the persistence of slender nuclei in the midst of the hyaline material. When cut transversely, these hyaline rods were seen to be cylindrical or rounded, and occasionally showed a central portion or core which stained deeply in hematoxylin, similar to the central portions of some of the hyaline spherules.

Blood vessels were not numerous, and were frequently represented by mere channels among the cells. Some showed a small quantity of fibrous tissue forming an adventitia, but connective tissue was scanty, and there was no appreciable division of the cell groups by vascular connective tissue, as in many tumors of this class.

Adhesions to the dura mater were found to be intimate, and the origin from this membrane was indicated by a gradual transition from the fibrous tissue of the dura to the spindle-cell structure of the tumor.

The brain was not examined with the microscope, as its condition had probably no relation to the tumor.

The kidneys showed advanced interstitial nephritis, and a small papilliferous cyst-adenoma was found in one of the tissue blocks sectioned. Others may have existed, but were invisible to the naked eye, as was this one.

Other organs were not examined with the microscope.

incompetency of the tricuspid valve. Aortic valves were somewhat thickened and calcareous; mitral valve slightly thickened at its free margins. The auricles were dilated; the left ventricle hypertrophied; superficial arteries tortuous and rigid; aorta corrugated and dilated at the arch, and at the lower part atheromatous and calcified in patches.

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Brain: Weight, 1,200 grams. The convolutions were generally shrunken; arteries at the base atheromatous; ventricles enlarged; brain tissue soft and œdematous. No gross lesions were found in any part of brain. Left optic nerve atrophied, corresponding with loss of sight of the eye.

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Abdomen.—Spleen soft and dark; capsule thickened and wrinkled; weight, 100 grams.

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Other organs showed nothing of importance.

MICROSCOPIC EXAMINATION.

The tumor proved to be a spindle-celled endothelial sarcoma. The structure consisted of spindle cells with oval and elongated nuclei and clear or faintly granular cell bodies, closely applied to each other, with no perceptible intercellular substance in the denser masses. In some parts of the growth the cells were more loosely arranged, and faint indications of fibrillated intercellular tissue could be seen. The cells were arranged in beautifully curved bands, running in every direction and in concentrically arranged cell spherules, which had frequently been changed to pearly hyaline bodies, so characteristic of this form of growth. Hyaline spherules of medium size were very common, and occasionally whole fields were found consisting of closely set cell spherules undergoing hyaline change, as shown in Fig. 13. In addition to these hyaline cell nests, there were in some parts of the tumor numerous hyaline rods lying among the cells and often intermingled with each other and with the cells in an indescribable way. As a rule, these rods seemed to be found in bundles of cells running in the same direction, and were evidently due to hyaline transformation of cells, shown by the persistence of slender nuclei in the midst of the hyaline material. When cut transversely, these hyaline rods were seen to be cylindrical or rounded, and occasionally showed a central portion or core which stained deeply in hematoxylin, similar to the central portions of some of the hyaline spherules.

Blood vessels were not numerous, and were frequently represented by mere channels among the cells. Some showed a small quantity of fibrous tissue forming an adventitia, but connective tissue was scanty, and there was no appreciable division of the cell groups by vascular connective tissue, as in many tumors of this class.

Adhesions to the dura mater were found to be intimate, and the origin from this membrane was indicated by a gradual transition from the fibrous tissue of the dura to the spindle-cell structure of the tumor.

The brain was not examined with the microscope, as its condition had probably no relation to the tumor.

The kidneys showed advanced interstitial nephritis, and a small papilliferous cystadenoma was found in one of the tissue blocks sectioned. Others may have existed, but were invisible to the naked eye, as was this one.

Other organs were not examined with the microscope.

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NINE CASES OF CARDIAC ANEURISM.

In my collection of aneurisms I have found nine cases in which localized dilatation of the heart wall existed of sufficient extent to merit the term "cardiac aneurism." This term, as now used, applies to those partial or localized dilatations which are more or less saccular or pouched character, and not to the enlargement of a cavity, as at one time used. In many cases of chronic interstitial myocarditis a localized bulging of the thinned and fibrous wall is present; these I have not as aneurismal unless the dilatation was circumscribed and distinctly pouched.

Interstitial myocarditis is very common among my cases; in about 1,550 autopsies I have records of 51 cases besides those included in the present study, and in 10 examinations the heart was, for one reason or another, not completely sectioned; lesion of the myocardium. In many of these cases some thinning of the wall was present; but, on the other hand, fibrosis in patches was often found without any of the condition previous to section.

Unquestionably, the most common cause of cardiac aneurism is fibroid change of the heart wall; sometimes associated with valvular and mural endocarditis, and probably due to the same general cause; sometimes associated with sclerosis of the coronary arteries and consecutive to this condition, and frequently of uncertain origin. A few cases originate in specific myocarditis. Two or more of my cases were probably due to syphilitic chronic myocarditis, and one case of acute aneurism of the septum with perforation into the right ventricle, was without doubt the result of gummatous myocarditis. In some of my cases the pericardium was thickened and the layers adherent locally or generally, but this condition was regarded as the result rather than the cause of the myocardial disease. Two of the cases probably originated in acute affections of the heart wall; in one the condition was due to softening of the heart muscle, following thrombosis of a sclerotic coronary artery; the other resulted from what I have called thrombo-myocarditis, affecting the anterior wall of the right ventricle. In all cases the disease affected the left ventricle, except in the case just mentioned and in a case of supposed specific origin in which aneurismal bulging was found in both ventricles.

As to the relation of the condition of the heart to the disturbance of brain function, it is reasonable to conclude that in some instances they are correlated; but this is a course, difficult to prove. In the cases dependent upon vascular disease or syphilis the brain disturbance was probably of similar origin.

Unfortunately, owing to the mental state of the patients, the clinical history in most cases unsatisfactory. In some, only the symptoms of cardiac weakness were noted; in some the diagnosis was obscure, but a serious condition was known to exist. In one or two cases no cardiac trouble was suspected until sudden death occurred. In a few cases extreme anginous pain was noted during the last illness.

The number of cases is too small to add materially to the valuable statistics of cardiac affection, but as each case presents some individual interest and the study may contribute somewhat to our knowledge of this comparatively rare disease, the following brief synopsis of the nine cases are herewith presented.

CASE 593.

Cardiac aneurism, affecting the left ventricle wall and middle, nativity, Germany. Mental disease, senile dementia. Heart Weight, 13 ounces. The right side of the heart was normal in respect to size. Walls of left ventricle decidedly fibrous when sectioned. On the back of the mitral valve the wall bulged outward, 1 1/2 inches, which was partly filled with a laminated clot about three inches long. The aneurism occupied about half the length of the anterior part of the septum and another bulging toward the posterior part was shallow and not occupied by a clot. Section of the large artery showed almost complete conversion into fibrous tissue and great thickening of the wall. The fibrosis was not complete and the septum and the endocardium was thick and opaque, and over the outer

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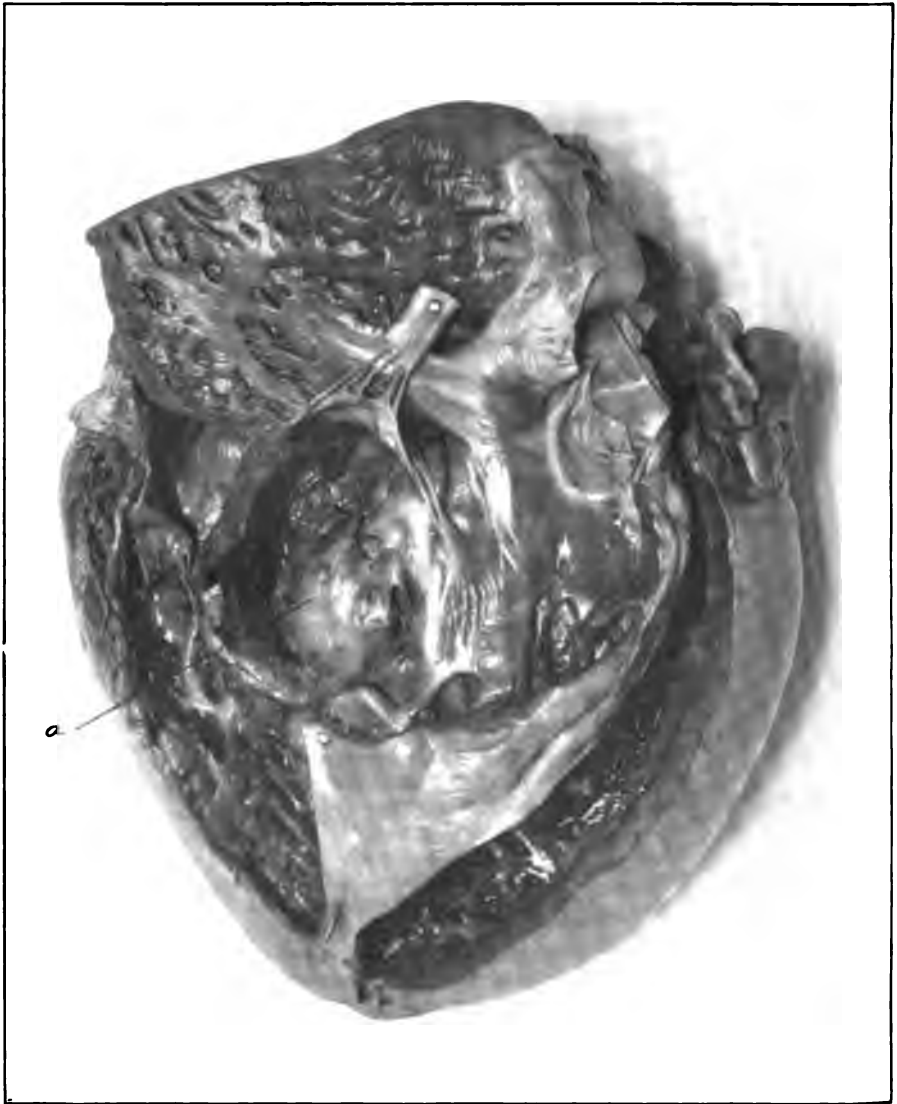
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CASE 610.—CARDIAC ANEURISM WITH RUPTURE OF THE SEPTUM, RESULTING FROM SPECIFIC MYOCARDITIS.

a Bulging of the aneurism on right side of the septum, with crescent-shaped rupture.

aneurism was a recent pericarditis with slight adhesions. The aortic valves were thickened and stiffened by calcareous deposits and had some small recent vegetations along the line of contact. The mitral valve was considerably thickened and contracted and had some soft vegetations along its margins. The aorta and arterial system in general showed marked atheroma.

The aneurism in this case was evidently secondary to interstitial myocarditis, and the cause of the latter, in the absence of definite history, can not be determined. The heart was known to be weak, but the aneurism gave rise to no definite symptoms. The immediate cause of death was pulmonary gangrene and thrombosis of the pulmonary artery.

CASE 608.

Cardiac aneurisms, affecting both ventricles and the septum.—D. S.; aged 35; laborer; nativity, Virginia. Mental disease, chronic dementia; duration, three years.

Heart.—Weight, 22½ ounces. Nearly the whole pericardium was covered with patches of chronic pericarditis. Large "milk patches" were found on the anterior wall of right ventricle, over the upper part of left ventricle, and at the apex, where the two layers were firmly adherent. There had also been a recent accession of the pericardial inflammation, with a considerable increase of sero-fibrinous exudate. Section of the heart showed an extensive, almost general, fibroid change in the heart walls and decided opacity and thickening of the endocardium. A large aneurismal dilatation existed in the wall of the left ventricle, at the upper part, back of the mitral valve. The protrusion was very distinct externally, and within it was so nearly sacular that a laminated clot had formed in the deepest portion. The wall at this situation was very thin and fibrous.

At the lower part of the septum was another marked bulging of the wall toward the right. This depression was shallow; it contained no clot and the endocardium within it was very thick, but the fibrosis was not deep in the muscular tissue.

In the wall of the right ventricle just below the semilunar valves were two dilations which showed distinctly externally when the heart was distended with blood. The endocardium was thickened within these pouches, but no clots had formed.

The cavities were all dilated, apparently in part due to weakening of the myocardium from fibrosis. The pulmonary valves were normal; the tricuspid valve was slightly thickened at its edges and the orifice was somewhat enlarged. The aortic valves were normal; the mitral valve was a little thickened at its margins and the orifice was enlarged.

There was some general arterio-sclerosis, and a small aneurism was found at the point where the anterior and middle cerebral arteries came off the right carotid. Several cerebral softenings had resulted from the vascular disease.

This patient had a history of specific disease and the condition of the heart was attributed to this cause. The existence of the disease was confirmed by the appearance of a scar on the corona glandis, a linear scar in the right groin, and by great distortion of the liver from deep scars, evidently of gummatous origin.

The specific nature of the disease, with the irregularity of distribution of the primary myocarditis, may account for the aneurismal bulging of the right ventricle, contrary to the rule that cardiac aneurisms occur only on the left side of the heart.

The patient died suddenly and death was attributed to failure of the diseased heart.

CASE 610.

Acute specific aneurism of the ventricular septum, with rupture into the right ventricle.—J. T.; aged 31; colored; soldier; nativity, Kentucky. Mental disease, chronic melancholia; duration, over two years.

Heart.—Weight, 12 ounces. Valves of right side, normal; aortic valves not diseased, but the valves and aorta were noticeably small. The mitral valve was slightly thickened at its margins, but competent. In the septum just below the aortic valves was a marked bulging directed toward the right ventricle, with a large, ragged opening at the deepest portion communicating with the right ventricle. The rupture appeared to have been slowly formed, with hemorrhage into the softened tissue in the vicinity and some formation of clots. At the time when the final rupture took place little remained of the wall except the thickened endocardium of the right ventricle, which gave way in a linear tear. On the right side of the septum the lesion showed as an irregular bulging nearly 2 inches across, which was made up of remnants of the septum, shreddy clots, and the thinned-out portion of the aneurism sac. (Plate III.)

The organs in general showed the effects of chronic cardiac incompetency, but need not be here described.

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CASE 593.

Cardiac aneurisms, affecting the left ventricle wall and the septum.—C. R.; aged 72; soldier; nativity, Germany. Mental disease, senile dementia; duration, unknown.

Heart.—Weight, 13 ounces. The right side of the organ seemed normal in every respect. Walls of left ventricle decidedly fibrous wherever sectioned, and on the left side back of the mitral valve the wall bulged outward, forming a shallow aneurism, which was partly filled with a laminated clot about three-eighths of an inch in thickness. The aneurism occupied about half the length of the left border of the heart. In the anterior part of the septum was another bulging toward the right ventricle; this was shallow and not occupied by a clot. Section of the larger aneurismal wall showed almost complete conversion into fibrous tissue and great thinning of the wall; in the smaller sac the fibrosis was not complete and the septum was not much thinned. The endocardium was thick and opaque, and over the outer surface of the ventricular

aneurism was a recent pericarditis with slight adhesions. The aortic valves were thickened and stiffened by calcareous deposits and had some small recent vegetations along the line of contact. The mitral valve was considerably thickened and contracted and had some soft vegetations along its margins. The aorta and arterial system in general showed marked atheroma.

The aneurism in this case was evidently secondary to interstitial myocarditis, and the cause of the latter, in the absence of definite history, can not be determined. The heart was known to be weak, but the aneurism gave rise to no definite symptoms. The immediate cause of death was pulmonary gangrene and thrombosis of the pulmonary artery.

CASE 608.

Cardiac aneurisms, affecting both ventricles and the septum.—D. S.; aged 35; laborer; nativity, Virginia. Mental disease, chronic dementia; duration, three years.

Heart.—Weight, 22½ ounces. Nearly the whole pericardium was covered with patches of chronic pericarditis. Large "milk patches" were found on the anterior wall of right ventricle, over the upper part of left ventricle, and at the apex, where the two layers were firmly adherent. There had also been a recent accession of the pericardial inflammation, with a considerable increase of sero-fibrinous exudate. Section of the heart showed an extensive, almost general, fibroid change in the heart walls and decided opacity and thickening of the endocardium. A large aneurismal dilatation existed in the wall of the left ventricle, at the upper part, back of the mitral valve. The protrusion was very distinct externally, and within it was so nearly sacular that a laminated clot had formed in the deepest portion. The wall at this situation was very thin and fibrous.

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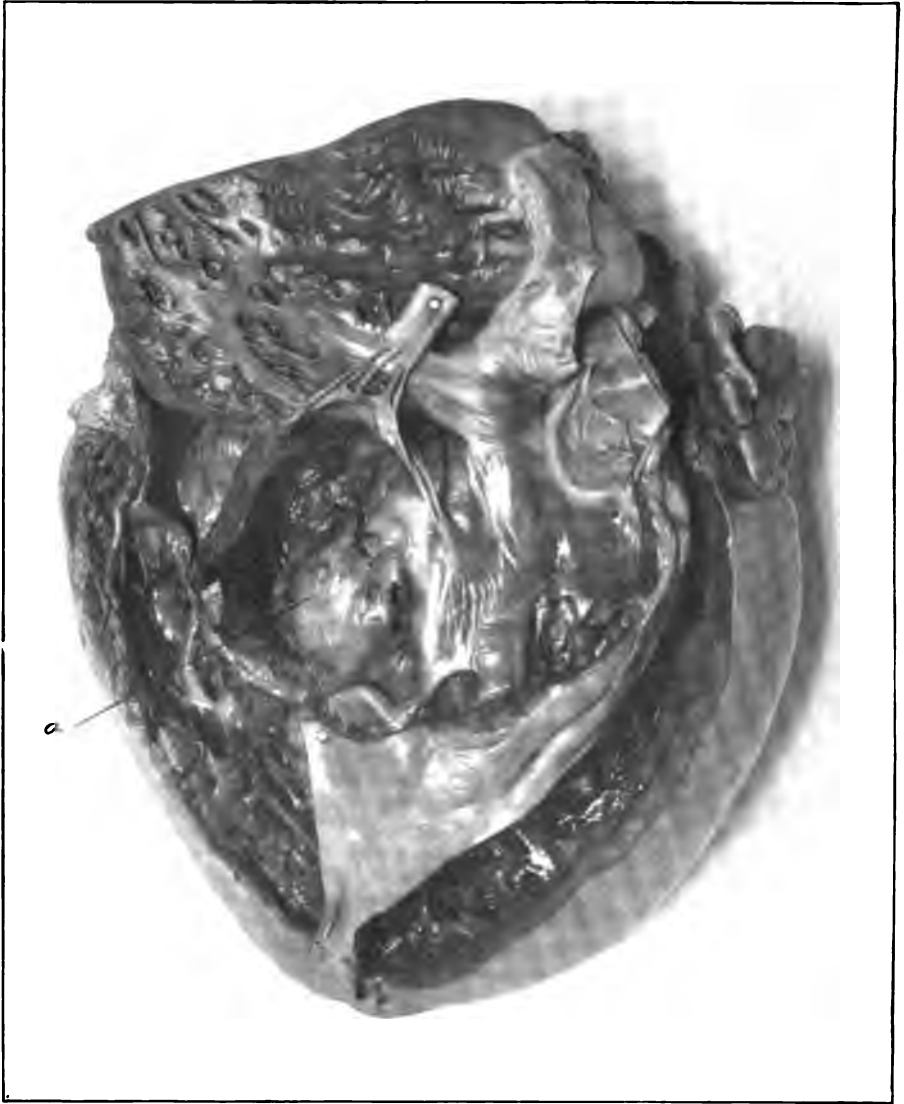
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Acute specific aneurism of the ventricular septum, with rupture into the right ventricle.—J. T.; aged 31; colored; soldier; nativity, Kentucky. Mental disease, chronic melancholia; duration, over two years.

Heart.—Weight, 12 ounces. Valves of right side, normal; aortic valves not diseased, but the valves and aorta were noticeably small. The mitral valve was slightly thickened at its margins, but competent. In the septum just below the aortic valves was a marked bulging directed toward the right ventricle, with a large, ragged opening at the deepest portion communicating with the right ventricle. The rupture appeared to have been slowly formed, with hemorrhage into the softened tissue in the vicinity and some formation of clots. At the time when the final rupture took place little remained of the wall except the thickened endocardium of the right ventricle, which gave way in a linear tear. On the right side of the septum the lesion showed as an irregular bulging nearly 2 inches across, which was made up of remnants of the septum, shreddy clots, and the thinned-out portion of the aneurism sac. (Plate III.)

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The patient died suddenly and death was attributed to failure of the diseased heart.

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Heart.—Weight, 12 ounces. Valves of right side, normal; aortic valves not diseased, but the valves and aorta were noticeably small. The mitral valve was slightly thickened at its margins, but competent. In the septum just below the aortic valves was a marked bulging directed toward the right ventricle, with a large, ragged opening at the deepest portion communicating with the right ventricle. The rupture appeared to have been slowly formed, with hemorrhage into the softened tissue in the vicinity and some formation of clots. At the time when the final rupture took place little remained of the wall except the thickened endocardium of the right ventricle, which gave way in a linear tear. On the right side of the septum the lesion showed as an irregular bulging nearly 2 inches across, which was made up of remnants of the septum, shreddy clots, and the thinned-out portion of the aneurism sac. (Plate III.)

The organs in general showed the effects of chronic cardiac incompetency, but need not be here described.

The capsule of the liver was slightly adherent to the diaphragm, and the surface was deformed by deep, puckered scars. Section showed that these scars extended deeply and that similar cicatrices were formed within the substance of the organ. The naked-eye appearances and subsequent microscopic examination showed that the lesions were specific.

Other organs showed nothing of special importance in relation to the cardiac disease.

In this case there was a history of syphilis, confirmed by a scar on the prepuce, dermal lesions on chest and limbs, and by the condition of the heart and liver above noted. The heart lesion was concluded to be specific from the appearances of the myocardial lesion, but as the specimen was preserved for the Museum it was not examined with the microscope. The slight disease of the valves had probably little to do with the specific process in the heart muscle.

The clinical history was unsatisfactory. The heart was known to be diseased, but the character of the trouble was unsuspected. Death occurred suddenly, immediately following the rupture.

CASE 669.

Saccular aneurism of left ventricle.—J. R. P.; aged 82; late soldier; nativity, New York. Mental disease, chronic mania; duration, seventeen years and four months.

Heart.—The weight of the heart with the aneurism was 23 ounces. The pericardial cavity was obliterated by strong chronic adhesions, and the aneurismal sac which projected from the apex was so firmly adherent to the diaphragm and other structures that it could not be separated. Section of the left ventricle showed a large patch of endo-myocarditis at the apex and a circular opening about three-fourths of an inch in diameter at the junction of the septum and ventricular wall leading into a saccular aneurism. The aneurism was about 3 inches in diameter, nearly spherical in shape, and the cavity was filled with dry laminated clots. The wall was not over one-fourth of an inch in thickness, was apparently made up of fibrous tissue, and neither the endocardium nor the pericardium could be demonstrated.

The direction of the protrusion was downward, backward, and inward, so it could hardly have been detected by percussion or other external examination.

The pulmonary valves were normal, the tricuspid slightly thickened, aortic valves somewhat thickened and calcareous, mitral valve slightly contracted at its margins, muscular papillæ fibrous and elongated.

The arteries generally showed some atheroma, those of the brain especially so, and some softenings of the brain had been produced thereby.

The pleural cavities contained a large increase of fluid; lungs emphysematous at anterior portions and pigmented.

Spleen deformed by the remains of a large infarction. Kidneys contracted, and the left showed several scars, probably the result of former infarctions. Bladder showed acute catarrh.

The liver was small and weighed but 33 ounces. The surface was granular; a patch of adhesion to the diaphragm over right lobe and the left lobe contained several large, deep cicatrices. The gall bladder contained several calculi.

Other organs showed nothing of importance.

In the absence of specific history, the condition of the heart, liver, and arterial system can only be regarded as suspicious. There was no history of rheumatism or other cause of myocarditis, and the slight valvular disease would hardly be consistent with endocarditis. The exact condition of the heart was of course not recognized during life, but the patient was known to have some serious cardiac condition. Death was from exhaustion due to organic disease of brain and heart.

CASE 736.

Aneurism of left ventricle.—A. F.; aged 86; soldier; nativity, France. Mental disease, senile dementia; duration, over two years.

Heart.—Weight, 11½ ounces. The pericardium showed several patches of chronic thickening, the largest being over the anterior wall of the right ventricle and the apex of the left. The coronary arteries were atheromatous and rigid. The valves of the right side were normal; aortic valves much thickened, contracted, and calcareous; mitral valve thickened and rigid; muscular papillæ fibrous. The wall of the left ventricle was in general about three-fourths of an inch in thickness; at the apex it was fibrous and not over one-eighth of an inch thick. Back of the posterior leaflet of the mitral valve the heart wall was markedly thinned and pouched, and an

ante-mortem clot adhered to the endocardium. Section of the thin portions of the wall showed decided fibrosis and some yellowish masses, supposed to be remains of necrotic muscular tissue. The wall of the right ventricle was thin and encroached upon by fat, but showed no fibroid change.

The arteries generally were atheromatous, especially of the brain, and several cerebral softenings had been produced.

The kidneys were granular and contracted, and a few small acute inflammatory foci were found. The liver showed slight passive congestion. Other organs presented nothing of importance.

The interstitial myocarditis in this case seemed to be due to the arterio-sclerosis, and the aneurismal bulging was the result of this weakening of the heart wall. The patient was known to suffer from some form of cardiac disease, but the exact nature was of course unknown. The patient died apparently from heart failure and senility.

CASE 1474.

Aneurism of left ventricle.—S. B.; aged 78; soldier; nativity, Germany. Mental disease, senile dementia; duration, uncertain.

Heart.—Weight, 14 ounces. The heart was flabby and soft; a patch of chronic pericardial thickening over anterior wall of the right ventricle. Pulmonary valves normal; tricuspid valve a little thickened at its free margins, and the orifice was twice the normal size; the aortic valves were thickened, calcareous, and two of the segments were adherent to each other; mitral valve thickened, slightly calcareous, and incompetent. The left ventricle was moderately enlarged, and at the apex and back of the mitral valve the wall was decidedly thinned by interstitial myocarditis. At the latter situation there was marked bulging of the wall, and at the apex the wall was locally dilated and an ante-mortem clot had formed on the endocardium. The endocardium of the whole ventricle was greatly thickened, and the myocarditis had apparently extended directly from it. The arteries of medium size were atheromatous, especially those of the brain, but the aorta and the coronary arteries were scarcely at all affected.

The dura mater showed marked internal pachymeningitis. Pia opaque and thickened. Brain greatly atrophied and ventricles much dilated.

Lungs showed chronic bronchitis and some hypostatic solidification posteriorly.

Kidneys showed slight adhesion of the capsules, and the left contained a recent white infarction. The liver was bile-stained and slightly congested.

In this case there was no history except of cardiac weakness. The patient had senile gangrene of the foot, and died with symptoms of septicæmia.

CASE 1527.

Thrombotic softening of the myocardium of the left ventricle with acute aneurism.—R. G.; aged 46; soldier; nativity, Maryland. Mental disease, chronic mania; duration, twenty-two years.

Heart.—Weight, 14 ounces. Pulmonary valves normal; tricuspid valve not diseased but relatively incompetent; aortic and mitral valves considerably thickened and contracted; the mitral orifice normal. The coronary arteries were atheromatous, calcareous, and tortuous. At the apex of the left ventricle was a limited patch of acute pericardial adhesions which corresponded with an acute softening of the heart muscle, affecting the ventricular wall and adjoining part of the septum. An ante-mortem clot had formed on the endocardium and the heart wall bulged prominently. The exact age and character of the lesion were hard to determine, but the softening was evidently acute.

The left coronary artery, which supplied the affected region, was opened and was found to be greatly obstructed by atheroma, and a thrombus had formed about half an inch from the origin of the vessel.

The aorta and other arteries were atheromatous. The organs in general showed some passive hyperæmia.

Careful examination of the heart wall at the seat of the bulging showed some fibrosis of the wall in addition to the more acute condition following the thrombosis. This would indicate a previous fibroid change, which was probably due to the sclerosis of the coronary artery.

The patient had a history of several attacks of rheumatism, from which he apparently recovered, but the heart action was known to be impaired. His last illness was characterized by symptoms of angina pectoris and death resulted from heart failure.

CASE 1528.

Case of thrombo-myocarditis with acute aneurismal bulging of the heart wall.—F. K.; aged 60; soldier; nativity, Germany. Mental disease, chronic dementia; duration, two and a half years.

Heart.—Weight, 14 ounces. On examining the heart externally it was seen that the lower part of the right ventricle bulged prominently and the pericardium at this situation was congested and inflamed. Section showed that a thrombus had formed on the internal surface and inflammation had apparently extended from the clot. As the coronary arteries were not diseased it was supposed that the thrombosis was primary. At the site of the lesion the heart muscle was inflamed and hemorrhagic. As the lungs were in an advanced stage of tuberculosis it was thought the thrombus might have been infected from that source. The valves of the right side were not diseased; left valves slightly thickened.

The lungs were in an advanced stage of acute tuberculosis.

Kidneys slightly contracted. Bladder catarrhal. Intestines showed extensive ulcerations. Liver adherent to the diaphragm and hyperæmic.

The exact nature of the heart lesion was hard to determine. The heart was extremely weak, and it is probable that the thrombosis occurred from that cause; how the supposed infection of the thrombus occurred must be conjectural. The patient's death was attributed to pulmonary tuberculosis and cardiac failure.

CASE 1553.

Aneurismal dilatation of left ventricle.—F. W.; aged 76; laborer; nativity, Germany. Mental disease, senile dementia, duration four years.

Heart.—Weight, 16½ ounces. The organ was considerably enlarged, and over the anterior part of the left ventricle was a marked bulging, over which the two layers of the pericardium were adherent. Incision showed that the heart wall at this situation was very thin, and mainly composed of fibrous tissue. The endocardium lining the dilated portion was thick and opaque, and some thickened patches were found in other parts of the interior. The wall of the cavity was somewhat roughened, and some small shreddy coagula adhered to the surface.

The pulmonary valves were normal; the tricuspid valve was relatively incompetent, but showed no disease. The aortic valves were considerably thickened and contracted; mitral valve slightly thickened and the orifice was enlarged. The aorta and coronary arteries were atheromatous, and the ascending part of the arch was dilated.

The cerebral arteries were atheromatous; the brain was atrophied and cedematous; and there were localized softenings in the basal ganglia and internal capsule of left side.

The lungs were cedematous and showed some hemorrhages, due to asphyxia. Masticated food was found in the air passages, as the patient was asphyxiated by the entrance of food into the larynx.

Kidneys were contracted; surfaces granular; color, dark red.

Other organs showed the effects of chronic hyperæmia, but nothing else of importance.

In this case there were no special symptoms indicating the condition of the heart, and it was impossible to determine the exact mode of death. The patient died suddenly while eating, but whether from sudden failure of heart or brain, or from the accidental aspiration of food, and asphyxia, could not be determined. In cases of grave organic disease of brain, with some paralysis of the muscles of respiration and deglutition, the accidental entrance of food into the larynx is not uncommon.

SYNOPSIS OF POST-MORTEM EXAMINATIONS IN TWENTY-TWO CASES OF AORTIC ANEURISM.

Twenty-two cases of aneurism of the aorta.—Twenty-two cases of aortic aneurism here-with given in synopsis, comprise all the recorded cases occurring in 1,550 post-mortem examinations. To the writer's mind this number is surprisingly small considering the advanced age of many of our patients and the extreme frequency of the various kinds and degrees of arterio-sclerosis. It should be mentioned, however, that only those cases are included in which distinct saccular bulgings of the great trunk existed, or if the whole arch were effected, of sufficient degree to be distinctly aneurismal.

Dilatation of the arch to a greater or less degree is extremely common in arterio-sclerosis, but these have not been classed as aneurisms unless beyond the ordinary and of that character usually designated as fusiform aneurism. In several cases the arch was aneurismal and the saccular form was also present. Dilatation of a part or the whole of the arch existed in at least 15 cases; in nine of these saccular aneurism coexisted in some part of the vessel; in two cases rupture of the internal coats had occurred and dissecting aneurism had been produced. There were three aneurisms of the abdominal aorta; one of the thoracic portion; one of the right middle cerebral artery, and two large false aneurisms of the breast consecutive to aneurism of the aortic arch.

The study of these cases is mainly from the standpoint of the morbid anatomist. Owing to the mental condition of many of the patients, clinical history, especially as to subjective symptoms, was hard to obtain, and in some cases totally wanting. Some of the smaller tumors probably gave rise to no definite symptoms, while other cases produced only those general signs of circulatory disturbance commonly attributed to cardiac disease.

To the student of pathology some of the cases are of extreme interest as examples of the peculiarities of development, course, and termination of aneurisms. The termination of some of the most insignificant size in fatal hemorrhage, while others of extreme bulk end in exhaustion of the patient or intercurrent disease, without rupture, is an important fact in the history of aneurisms.

The relation of these diseases of the great arterial trunks to mental disorder is of extreme interest. It is reasonable to conclude that some direct relation exists between the condition of the great blood channels and the state of nutrition of the brain; it is equally conceivable that the toxic agencies which produce arterio-sclerosis may have a primary injurious effect upon the brain cells, to which the nutritional disturbances from vascular disease bear a secondary relation.

It may be here mentioned that the condition of the aorta and great arterial trunks is not a certain indication of the state of the cerebral arteries. In seven of the cases given the arteries of the brain showed no disease visible to the naked eye; in 15 cases various degrees of arterio-sclerosis existed, and localized cerebral softenings had been produced in eight cases. Of the seven cases in which the cerebral vessels were normal all were under 57 years of age. The arterial sclerosis of old age is usually more widely distributed, and the rule is to find the cerebral arteries affected when the larger vascular trunks are diseased.

As to the causes of these aneurisms nothing definite can be given. The histories previous to admission are hard to obtain and often unreliable; occupations were various and furnished no information; and histories of syphilis, alcoholism, and the like, are always somewhat doubtful in the absence of post-mortem lesions or other confirmation.

The ages of the patients corresponded mainly with the period of life at which aneurisms are most common. Four of the cases were between 41 and 48 years of age; eight were between 52 and 58 years; six were between 61 and 70 years of age. The oldest patient was 78, the youngest was 31 years of age. In the last case there was an enormous aneurism of the descending part of the arch, the vessel was greatly diseased elsewhere, and the left common carotid artery and left subclavian artery were completely obstructed. In this case there was no definite history, but the age of the patient and some of the post-mortem appearances suggested that the cause may have been syphilis.

In the following synopses some of the associated conditions which may have had direct or indirect relation to the arterial disease are briefly noted; organs not mentioned are to be presumed as normal or as having no relation to the present subject.

CASE 4.

Aneurism of thoracic aorta.—L. R.; aged 53; soldier; nativity, Germany. Mental disease, chronic dementia; duration, unknown.

On opening the chest the right pleural cavity was found to be filled with blood from the rupture of a large thoracic aneurism. The sac occupied the part of the aorta corresponding to the ninth, tenth, and eleventh dorsal vertebræ and adhesions had formed to these bones. The bodies of the involved vertebræ were partly absorbed, leaving irregular, rough, bone surface as part of the wall of the sac. The inter-vertebral cartilages were less affected than the bones. Adhesions had also formed to the diaphragm, right lung, pericardium, and other structures, and rupture had taken place by the tearing of the adhesions opposite the head of the right tenth rib. The aneurism had a capacity of about 12 ounces; it was nearly globular in shape, and was partly filled with dry, laminated clots. The aorta at the entrance to the sac was not over five-eighths of an inch in diameter; the walls were atheromatous and the ascending part of the arch was dilated and thin.

The heart was somewhat enlarged. Valves of right side normal; left valves slightly thickened, and the aortic leaflets showed some old vegetations. Lungs pigmented, and contained some chronic tubercular deposits.

Kidneys contracted, and the surfaces were granular and cystic.

The liver showed great elongation of the left lobe and some passive hyperæmia.

Other organs presented no important changes.

The history in this case includes no symptoms of aneurism. The death was, of course, sudden, and preceded by sudden collapse.

CASE 58.

Aneurism of arch of aorta.—N. M.; aged 42; soldier; nativity, Norway. Mental disease, chronic mania; duration, not known.

In this case the whole arch of the aorta was dilated and atheromatous, and opposite the bifurcation of the trachea was a sacculated portion filled with laminated clots. Rupture had occurred into the left bronchus and blood had entered both lungs.

The heart was about normal in size, but was not weighed separately. The pulmonary valves were normal; the tricuspid valve was slightly thickened; valves of left side were a little thickened, but were apparently competent. The heart muscle seemed normal.

The upper lobes of the lungs were mottled with hemorrhagic areas from the inhaled blood; the lower lobe of the right was almost solidified by blood; lower left lobe was solid, nearly airless, and showed chronic fibroid pneumonia, affecting nearly the whole lobe.

The condition of the left lower lobe may have had some relation to the pressure of the aneurism upon the left bronchus, but it was not clear. Histological appearances showed advanced fibroid pneumonia.

CASE 242.

Aneurism of aorta.—W. F. M.; aged 70; colored; laborer; nativity, United States. Mental disease, chronic mania; duration, unknown.

In this case the whole arch of the aorta was dilated and atheromatous, and the arterial system generally was affected. A small saccular aneurism was found in the abdominal aorta at the point of origin of the inferior mesenteric artery. The inferior mesenteric artery was included in the sac and to a great extent its origin was closed by atheroma and the laminated coagula within the aneurism. On account of this obstruction the colica sinistra artery was dilated to an aneurismal degree by reflux of blood into it from the colica media. The sac of the aneurism was nearly filled with loose laminated clots, and its presence could hardly have given rise to any symptoms.

The heart weighed 20½ ounces, was greatly hypertrophied and dilated. Pulmonary valves normal; tricuspid valve not diseased. Mitral valve a little thickened; aortic valves thickened and calcareous, but probably nearly competent. The arterial disease was probably the main cause of the hypertrophy, the valvular disease being relatively of slight importance.

The brain showed several softenings due to atheroma of the vessels. Kidneys showed some contraction, and the capsules were adherent. Other conditions found had no relation to the disease of the vessels, and need not be here given. The history showed no symptoms of disease of the circulatory organs had been observed except those attributed to cardiac disease. The abdominal aneurism being small, probably gave rise to no symptoms.

CASE 250.

Aneurism of abdominal aorta.—O. L.; aged 52; male; dentist; nativity, District of Columbia. Mental disease, chronic dementia; duration, two years.

The aorta was atheromatous generally, and at the anterior part of the abdominal aorta below the origin of the renal arteries was a saccular aneurism about 2½ inches in length and 2 inches in transverse diameter, which included the inferior mesenteric artery. In this case the cavity was partly filled with clots and the included mesenteric artery was not obstructed.

The arterial system generally was sclerotic and calcareous, and in the brain were a number of softenings due to vascular disease.

The heart weighed 22 ounces. It was much hypertrophied and dilated. Valves of right side normal; aortic valves thickened, calcareous, and contracted; mitral valve thickened and slightly calcified; walls of left ventricle greatly thickened.

Kidneys congested and granular on their surfaces. A few cysts in the cortex of the right. Other conditions found had no relation to the vascular disease.

CASE 356.

Aneurism of arch of aorta.—J. L.; aged 71; laborer; colored; nativity, Virginia. Mental disease, senile dementia; duration, sixteen months.

The aneurism in this case was quite small, not over half an ounce in capacity. It was situated on the concave part of the arch, mainly within the pericardium, and not over half an inch above the margin of the semilunar valves. The tumor seemed to press somewhat upon the pulmonary artery and left bronchus. The walls of the aneurism were atheromatous and calcareous, and within were covered by fibrinous deposits.

The heart weighed 14½ ounces. Valves of right side normal; left valves thickened, and the aortic valves were contracted and incompetent. The aorta was atheromatous throughout and the arteries generally were sclerotic.

Brain was extremely soft and oedematous; basal arteries distorted and rigid.

The kidneys were moderately contracted and showed some hydronephrosis.

Other organs showed no lesions of importance in this connection.

CASE 368.

Aneurism of arch of aorta with false aneurism of the breast.—M. K.; aged 58; soldier; nativity, Ireland. Mental disease, chronic epileptic dementia; duration, nearly five years.

The aneurism in this case formed on the ascending portion of the arch of the aorta and on the anterior aspect. The whole arch and the thoracic portion were greatly dilated and the dimensions enlarged in every direction, giving room for a sacculated aneurism at the place noted about 2 inches in diameter, with an opening into the vessel nearly the same size. The sac had projected forward and formed adhesions to the chest wall, and the cartilage of the third rib and adjoining borders of the second and fourth cartilages and intercostal tissues formed the wall of the false aneurism, making a prominent bulging on the chest to the right of the sternum. The sac of the aneurism was partly filled with laminated clots, but fluid blood was in contact with the false part of the wall. The bulged part of the chest wall was quite firm, being formed to a great extent by the costal cartilages, but the third rib had been eroded at its anterior end and was freely movable.

The whole aorta was atheromatous and calcified, and the arch was many times the normal size. The heart was displaced downward and to the left, the innominate, common carotid, and left subclavian arteries displaced to the left; bronchi and pulmonary artery pressed upon and strained from their normal position, and the lungs pressed upon and forced apart at their roots.

The heart was not appreciably enlarged. Valves of right side normal; left valves slightly thickened, especially the aortic leaflets.

The spleen was dark and firm from chronic passive congestion.

Kidneys. The left showed an advanced degree of hydronephrosis and some inflammation of the pelvis and ureter caused by a rough calculus lodged in the upper end of the duct. The right was darker than usual from passive hyperæmia, but was in other respects normal.

Liver was somewhat granular on the surface and mottled by passive hyperæmia. The brain showed the effects of malnutrition due to disease of the arterial system, but no gross softenings or other lesions.

An interesting anomaly was discovered in the dissection of the muscles of the chest—namely, a rectus sternalis muscle. The muscle arose by a distinct tendon from the aponeurosis of the pectoral muscle near the sterno-clavicular joint; formed a belly which extended nearly to the lower border of the pectoralis, where it became tendinous, was reinforced by fascia fibers from the fibrous tissue near the lower end of the sternum, and finally formed another belly which extended backward and ended in the deep fascia under the axillary space. Its nervous supply could not be determined; and the muscle had evidently no function.

The patient presented the usual pressure symptoms of aortic aneurism and the nature of the external tumor was known. Fear was entertained that external rupture would take place, but the external coverings were strong, and the patient died of exhaustion without rupture.

CASE 388.

Aneurism of aorta, with rupture into the pericardium.—S. A. W.; aged 62; soldier; nativity, New Hampshire. Mental disease, senile dementia; duration, nearly two years.

On opening the pericardium a large quantity of coagulated blood was found in the cavity, nearly enveloping the heart. The blood was found to have escaped from a linear rupture of a fusiform aneurism of the arch. The opening was about three-fourths of an inch in length and had occurred in the intra-pericardial portion of the vessel at a part apparently but little diseased. On opening the vessel the whole arch was found to be dilated, but to a somewhat greater degree in the ascending portion. The whole aorta was atheromatous and the thoracic portion as well as the arch was dilated. The arterial system in general was sclerotic in patches.

The heart, with the aneurismal arch, weighed 24 ounces; the organ was moderately enlarged. Valves of right side normal; aortic valves were thickened and calcareous; mitral valve a little thickened, but probably competent.

Kidneys somewhat contracted; bladder hypertrophied.

Liver moderately congested and rather small.

The intestines showed numerous small hernia-like sacculations along the attachment of the mesentery.

Other conditions found were of no importance in the present relation.

The patient was known to have some embarrassment of the heart action, but the dilatation of the aorta was not discovered before death. Death followed the rupture in a few minutes.

CASE 451.

Aneurism of the abdominal aorta.—J. H. R.; aged 71; printer; nativity, New York. Mental disease; chronic mania; duration, eighteen and a half years.

The aorta showed patches of atheroma throughout, and just above the bifurcation of the vessel was a sacular aneurism about 2½ inches in length and 2 inches in transverse diameter. The sac projected posteriorly, and had contracted-firm adhesions to the vertebræ, at which portion of the sac the walls were very thin and imperfect. The vertebræ had been eroded to some extent, but no rupture had occurred, and the cavity was partly filled with laminated clots. The artery in the vicinity was very atheromatous, and the inferior mesenteric was included in the wall of the aneurism and much obstructed.

The heart weighed 12½ ounces. Valves of the right side normal, except some relative incompetency of the tricuspid valve. Left valves showed some thickening, and the endocardium was opaque. Coronary and other arteries were atheromatous.

The brain was greatly shrunken and œdematous; the arteries sclerotic and distorted. Kidneys were granular and cystic. Bladder hypertrophied, and the urethral orifice was obstructed by three papillomatous growths from the mucous membrane.

The liver showed some passive congestion, and the gall bladder contained three medium-sized calculi.

Other organs presented no changes of importance in relation to the vascular disease.

The history in this case showed no record of any arterial disease, and the aneurism being small and in a peculiar situation probably gave rise to no definite symptoms.

CASE 508.

Aneurism of the arch of the aorta.—T. C.; aged 65; soldier; nativity, Ireland. Mental disease, chronic melancholia; duration, three years.

The aorta at its origin showed some sclerosis and some dilatation, and at the transverse portion of the arch was the opening into a saccular aneurism about an inch and a half in average diameter. The sac of the aneurism was somewhat larger than the opening; it extended upward and backward and pressed upon the innominate artery and the trachea; and the latter was eroded through to the mucous membrane, and the cartilages were loosened and laid bare within the air passage. Actual rupture into the trachea had been prevented by the tough laminated clots which filled the sac, though these were beginning to soften at this point, showing that communication with the air had been established.

The heart weighed 13 ounces. The pericardium contained about 2 ounces of blood-tinged serum, and there were some recent plastic adhesions at the upper part of the cavity. The pulmonary valves were normal; the tricuspid very slightly thickened at its edges. Left valves were slightly thickened, but appeared competent; left endocardium thickened.

The brain was cedematous; somewhat shrunken and soft; arteries atheromatous.

Kidneys granular, dark red, and the capsules were adherent. Bladder slightly hypertrophied.

Liver showed slight passive congestion.

Other organs showed nothing of importance.

The early history in this case shows that the patient suffered from "rheumatism and general ill health." Later, while in this hospital, he had attacks of what appeared to be cardiac asthma, great dyspnoea on exertion, and some oedema of the lower extremities; but, as he would not allow of physical examination, his disability was attributed to cardiac disease, and the aneurism was not discovered. He died suddenly, apparently from heart failure.

CASE 583.

Aneurisms of arch of aorta.—W. E. D.; aged 56; soldier; nativity, Delaware. Mental disease, chronic dementia; duration, about eighteen months.

The aneurisms in this case were situated on the outer curve of the arch. One was situated just above the semilunar valves and was about half an inch in diameter; the other was about half an inch above it and was about an inch and a half in average diameter. Both were of the saccular variety; rather shallow, and contained no clots. The aorta was atheromatous and the arterial system generally diseased.

The heart weighed 18 ounces. Valves of right side normal; left valves slightly thickened; heart moderately hypertrophied.

Brain showed a decided degree of hydrocephalus and oedema, and the right lenticular nucleus was softened. Arteries at the base and within the tissue were sclerotic.

Kidneys contracted and cystic.

Other organs showed no important changes.

In this case, the aneurisms being small, there were no special symptoms. The cause of death assigned was organic disease of the brain.

CASE 664.

Aneurism of arch of aorta.—J. B. H.; aged 31; soldier; nativity, Ireland. Mental disease, chronic epileptic mania; duration, over two years.

A large aneurismal sac had formed on the descending portion of the arch and the whole curve was more or less dilated. The sac was large, at least 4 inches in average diameter, and had included the great arteries of the arch. The left common carotid and subclavian arteries were completely obstructed at their origin by atheromatous deposits; the innominate artery was somewhat displaced and obstructed, but still patulous, and must have conveyed all the blood to the head and brain. The walls of the sac were thin and imperfect, so that the blood was confined mainly by the surrounding structures; large shredly laminated coagula partly filled the interior but in no way strengthened the walls. Adhesions had formed to the spinal column and the bodies of the fourth, fifth, and sixth vertebræ were eroded and formed part of the aneurism wall. The tumor had pressed upon the left bronchus and so eroded the wall that the cartilages were laid bare and the mucous membrane was penetrated, with resulting hemorrhage filling the whole upper lobe and the bronchi of the lower. The lower lobe of this lung where not filled with blood presented a peculiar appearance, believed to be due to bronchiectasis and broncho-pneumonia, caused by pressure upon the bronchus.

The heart weighed 11½ ounces. Valves of right side normal; left valves competent. The aorta and all the principal arteries atheromatous in patches.

The brain showed faint opacity of the pia mater, atheroma of arteries, atrophy of convolutions, and a number of softenings in cerebrum and cerebellum.

Kidneys: Right, slightly contracted and scarred by infarctions; left, in the same general condition.

Liver showed some thickening of capsule in patches and slight passive congestion.

The clinical history in this case was very imperfect. Aside from the knowledge of the aneurism, little could be obtained. From the appearance of the diseased vessels and the age of the patient, specific arteritis was suggested, though there were no signs of syphilis elsewhere. The arterial disease was evidently the cause of the brain failure as well as the aneurism.

CASE 700.

Aneurism of the arch of aorta, with false aneurism of the breast.—J. B.; aged 53; soldier; nativity, Ireland. Mental disease, chronic dementia; duration, about eighteen months.

The aneurism in this case began as a true aneurism, which started from the arch of the aorta anteriorly, just above the semilunar valves. From this point the sac extended in every direction, but especially downward and forward over the heart, pushing the organ downward and toward the right. The sac had formed extensive adhesions to the chest wall to the left of the sternum, and had caused absorption of the third, fourth, and fifth ribs, and dislocation of the costo-chondral articulations of the fourth and fifth ribs. By means of this absorption a large opening had been made in the chest wall, by which the aneurismal sac communicated with a large false aneurism within the muscles of the chest. The opening from the sac to the false aneurism seemed to have been of long standing; the edges were rounded, and not a trace of the wall had extended beyond the aperture in the chest wall.

The inner surface of the false aneurism and the greater part of that of the sac showed adherent shreddy coagula. The aneurismal sac was almost as large as the heart itself, and the anterior aspect of the organ was almost covered by it. Firm adhesions had formed between the sac and the pericardium, and the cavity was obliterated by chronic adhesions.

It was difficult to determine the opening into the aneurism from the aorta; it seemed to be a defect of almost the whole anterior aspect of the arch from about half an inch above the aortic valves to the thoracic portion. Beyond this point the vessel was about normal in caliber and showed only traces of atheroma, while the whole arch was dilated and very atheromatous. The innominate, the common carotid, and left subclavian arteries were at the upper and posterior part of the arch and were still patulous.

The interior of the false aneurism showed that the tissues beneath the pectoralis muscle had been simply separated, and there was some extravasation between the muscle bundles. Though the blood had been circulating for some time in the false sac, there was very little alteration in the tissues, and only shreddy clots had been formed.

The skin over the chest tumor was slightly discolored, but no rupture had taken place at any part.

The heart could not be weighed nor be very well examined without spoiling the specimen. The organ was not enlarged so far as could be determined, and the valves were not diseased except possibly slight thickening of those on the left side.

The left lung was collapsed and the pleural cavity contained 55 ounces of blood-tinged fluid. The right lung was somewhat hypostatic.

The liver weighed 50 ounces. Capsule firmly adherent to diaphragm; surface was granular and large puckered scars gave a lobulated and distorted appearance to the organ. Section showed numerous fibrous areas in the vicinity of the portal canals, and some form of advanced cirrhosis, supposed to be specific, was suggested. The common bile duct was catarrhal and partly obstructed, and the gall bladder was full of thick, slimy bile.

The spleen was adherent to surrounding parts; the capsule was thickened and the pulp was pale and tough.

The brain showed some œdema, but no gross lesions, and the arteries showed no signs of disease.

The other organs showed no changes of importance in the present connection.

No history indicating cause for the aneurism could be obtained. The diagnosis of the growth was of course easy and the nature of the external tumor was apparent. The patient suffered extremely, and finally died of exhaustion without rupture. The limited character of the disease, the condition of the liver, and the fact of two scars in the groin suggest that the arterial disease may have been specific.

CASE 749.

Aneurism of arch of aorta with rupture into the pericardium, and dissecting aneurism extending nearly the whole length of the aorta.—M. M.; aged 45; colored; female; domestic; nativity, Maryland.

Mental disease, chronic dementia; duration, over twenty years.

The heart was somewhat enlarged, and the pericardial cavity was nearly obliterated by firm chronic adhesions, only a small portion of the cavity corresponding with the lower and posterior part of the right ventricle remaining free. This part of the cavity was filled with coagulated blood from a rupture of an aneurismal aortic arch into the pericardium.

Examination of the aorta showed extreme dilatation of the arch; and a rupture in the ascending part had allowed of escape of blood between the coats of the vessel and formed an extensive dissecting aneurism. Finally the outer coat had ruptured and blood had poured into the pericardium. The blood had separated the coats of the vessel over the whole arch and had passed down along the posterior wall almost to the bifurcation of the vessel. The opening in the intima was transverse and that in the outer coats, which opened into the pericardium, was lengthwise of the vessel; the two did not exactly coincide, showing that the intima was the first ruptured.

The arch was very atheromatous; the thoracic portion less so, while the lower end was extremely calcified and almost a continuous layer of broken calcareous plates.

Heart.—Pulmonary valves normal; tricuspid a little thickened and some of its chordæ tendinæ were separated. The aortic valves were thickened, showed some vegetations, and were probably incompetent; mitral valve somewhat thickened; small patch of mural endocarditis just below the aortic valves. The heart was somewhat enlarged, weighing 17½ ounces.

Kidneys.—Weight somewhat reduced; capsules adherent; surface granular; tissue congested.

Brain showed some atrophy and œdema; arteries contained a few patches of atheroma, but no interference with their lumen.

Other organs showed no important changes.

The history in this case contains no reference to disease of the circulatory organs until the sudden death with symptoms of collapse preceding.

CASE 794.

Fusiform aneurism of arch of aorta.—G. V.; aged 48; soldier; nativity, Canada. Mental disease, chronic melancholia; duration, four years.

In this case the whole arch of the aorta was greatly dilated, with a marked bulging of the intra-pericardial portion. Over this prominent portion the pericardium was inflamed and adherent. On opening the vessel, advanced calcareous and atheromatous change was revealed throughout the arch, and to a less degree in the whole vessel. The coronary arteries were obstructed at their orifices and atheromatous in patches.

The heart was about the normal size; muscle pale and soft; right valves a little thickened; those of left side slightly thickened but competent.

The kidneys showed some passive congestion and were somewhat indurated.

Liver contained more blood than normal. No gross lesions were found in the brain; the arteries were atheromatous.

Other organs showed nothing of importance.

The patient had a history of rheumatism, and the symptoms present were attributed to disease of the heart. Syphilis was suspected, from the presence of some old dermal scars.

CASE 805.

Aneurism of middle cerebral artery and of the abdominal artery.—T. S. C.; aged 64; soldier; nativity, United States. Mental disease, chronic epileptic mania; duration, over eighteen years.

This case was reported in full in the supplement to the report of the Government Hospital for the Insane, 1894.

The cerebral aneurism was situated at the origin of the right middle cerebral artery between the anterior choroid artery and the posterior communicating artery. The opening into the vessel was not over one-sixteenth of an inch in diameter; the tumor was about an inch and a half in greatest diameter and nearly globular in shape. The interior was completely filled with laminated clots.

The aortic aneurism had formed on the vessel exactly at the point where it was

crossed by the duodenum. Adhesion had formed to the bowel and rupture had occurred with great hemorrhage, filling the whole of the small intestine with a cylindrical clot.

For other conditions of interest in this case the writer would refer to the original report.

CASE 986.

Aneurism of arch of aorta.—L. H. W.; aged 61; clerk; nativity, Connecticut. Mental disease, chronic dementia; duration, fifteen months.

The aneurism had formed on the ascending part of the arch, just at the pericardial line, and a part of the tumor could be seen within the pericardium. The sac was small, not over an inch and a half in diameter. It projected from the left side of the ascending arch almost directly forward. On opening the vessel the whole arch was found to be dilated and the inner surface was covered by rough broken calcareous plates and atheromatous deposits. The other portions of the aorta and the arterial system generally showed advanced atheromatous changes.

The heart with the aneurism weighed 18 ounces. The pulmonary valves were normal; tricuspid orifice slightly enlarged; aortic valves thickened and calcareous, but probably competent, mitral valve slightly thickened at its edges.

Kidneys moderately contracted; bladder showed slight catarrh, and some enlargement of the prostate gland.

Liver showed some contraction and passive congestion.

Stomach showed evidences of chronic catarrh. Small intestine and colon were moderately congested, and the lower end of the ileum showed some erosions of the mucous membrane.

The brain was extensively softened as the result of disease of the arteries.

The aneurism being small probably gave no direct evidence of its presence. The patient was known to have some cardiac trouble and the symptoms were attributed thereto. The primary cause of the mental disease and death was the organic disease of the brain. The immediate cause of death was entero-colitis and diarrhea.

CASE 1192.

Fusiform aneurism of the arch of aorta with rupture and dissecting aneurism.—S. H.; aged 65; female; seamstress; colored; nativity, Virginia. Mental disease, chronic epileptic dementia; duration, fifteen years.

The whole aortic arch was dilated into a fusiform aneurism, and about an inch and a half above the valves a large transverse rupture had occurred. The tear was somewhat irregular, but was at least 3 inches in length and nearly encircled the enlarged vessel. Blood had escaped into the loose cellular tissue of the adventitia and had separated the outer from the middle coats for some distance from the rupture, showing that the intima and media must have given way some time before the complete rupture occurred. Blood had also escaped into the tissue of the mediastinum, the loose connective tissue at the root of the lungs, and about 12 ounces into the pericardial cavity.

The aorta was atheromatous throughout, and the arterial system in general was in the same condition.

The heart was somewhat enlarged. Valves of the right side slightly thickened, but probably competent; the left valves were thickened, but the orifices were apparently competent.

Brain was atrophied and showed several softenings and areas of sclerosis, due to disease of the vessels.

Kidneys deformed by scars of infarctions, showed some cortical cysts, and the tissue was congested.

Liver showed some local thickenings of the capsule and adhesions to diaphragm. The uterus showed cystomata of the mucous membrane, and the ovaries were apparently converted into large multilocular cysts. Other organs showed no important changes.

The history in this case was unsatisfactory. No diagnosis had been made, and the symptoms previous to the last illness were not recorded. The patient was taken suddenly ill in the evening, complained of pain in the region of the heart, and died the next morning.

CASE 1308.

Aneurism of arch of aorta.—J. P. J.; aged 78; soldier; nativity, Wales. Mental disease, senile dementia; duration, sixteen months.

The aortic arch was atheromatous and dilated, and a shallow saccular aneurism

had developed in the descending part to the left of the subclavian artery. The cavity was small, filled with laminated clots; no signs of rupture nor pressure upon important structures. The remaining portions of the aorta and the arterial system generally showed advanced sclerotic changes.

The heart was somewhat enlarged; some adhesions of pericardium; right valves normal, left valves slightly thickened; cavities somewhat dilated.

Kidneys were moderately contracted.

Liver small and mottled by passive congestion.

The brain showed great shrinkage and some central softenings, due to disease of the arteries.

Other organs showed nothing of importance.

No history could be obtained relating to the aneurism and vascular disease.

CASE 1338.

Aneurism of arch of aorta and false aneurism formed within the pleural cavity.—J. B.; aged 57; beneficiary, U. S. N.; nativity, Germany. Mental disease, chronic dementia; duration, over three years.

The arch was extremely dilated, the enlargement extending to the thoracic portion. Firm adhesions had formed to the bodies of the fourth, fifth, and sixth vertebrae, and an opening had been formed at the margin of these adhesions, allowing of the gradual escape of blood, which had formed a large laminated clot, confined in place by firm chronic pleuritic adhesions present. No free blood was found in either pleural cavity. On opening the aorta, it was found that the aperture into the false aneurism was about an inch in diameter. The edges were smooth, and it had evidently existed for some time, gradually forming a false sac and filling it with clots. Some oozing of blood had taken place into the mediastinum and tissue at the root of the lung before the final rupture into the lung, described below. The aorta was atheromatous throughout, and a small aneurism was found in the thoracic portion, about 2 inches below the arch. The great vessels of the arch were atheromatous, but not appreciably dilated.

Death had been caused by rupture of the walls of the false aneurismal sac, by which the blood had torn its way into the parenchyma of the lung, reached the bronchi, trachea, larynx, pharynx, and had even been swallowed, completely filling the stomach. The left upper lobe and the bronchi of the lower lobe were filled with blood; none had reached the right lung.

The heart was not weighed, but was somewhat enlarged. The right valves were normal; those of the left side slightly thickened.

The kidneys showed slight contraction and a few small cysts.

The brain showed some oedema. The arteries were not diseased.

In this case no history could be obtained previous to the last illness. Death occurred suddenly, preceded by hæmoptysis and collapse. It will be noted that in this case there was a high degree of atheromatous change in the aorta and great vessels, while the cerebral arteries were not diseased.

CASE 1425.

Aneurism of arch of aorta.—O. T.; aged 41; seaman; nativity, Ireland. Mental disease, chronic mania; duration, fourteen years.

In this case the aneurism had formed in the descending part of the arch and pressed upon the root of the left lung. Rupture had occurred at the most projecting part, and the blood had torn its way through the pleuritic adhesions in the vicinity, and 40 ounces of coagulated blood were found in the pleural cavity. A small quantity of blood had torn its way into the pericardial sac. The lung was greatly compressed by the blood, but there was no hemorrhage into the lung tissue.

The heart was normal in size and the valves appeared normal.

The kidneys were moderately contracted and granular.

The liver showed slight passive congestion.

The brain showed no gross lesions, and the arteries showed no signs of disease.

No history could be obtained previous to the last illness. Death was sudden, with symptoms of severe hemorrhage.

CASE 1532.

Fusiform aneurism of aortic arch.—R. McC.; aged 57; soldier; nativity, Illinois. Mental disease, chronic epileptic dementia; duration unknown.

In this case the entire arch was aneurismal as the result of advanced arterio-sclerosis, and the whole aorta was atheromatous and full of calcereous deposits.

The heart weighed 12 ounces; right valve normal except some enlargement of the tricuspid orifice; left valves showed a slight degree of chronic thickening.

The brain showed no gross lesions; cerebral arteries not diseased.

Lungs tubercular and hypostatic.

Kidneys normal; liver showed some passive hyperæmia.

Other organs presented nothing of importance.

The history in this case showed attacks of what was supposed to be cardiac asthma, and the symptoms present were attributed to cardiac disease. Death apparently resulted from cardiac failure and the pulmonary disease.

CASE 1544.

Aneurism of the aorta.—S. G.; aged 53; colored; laborer; nativity, Virginia. Mental disease, paresis; duration unknown.

In this case the arch of the aorta was dilated and atheromatous, and at the junction with the thoracic portion was a saccular aneurism about 2 inches in average diameter and nearly globular in shape. The opening from the vessel was about an inch and a half in diameter and the sac was filled level with it with dry laminated clots. The aneurism was directed backward and inward and had formed adhesions to the fifth, sixth, and seventh vertebræ and the heads of the corresponding ribs. The bodies of the vertebræ were so deeply eroded that the periosteum of the spinal canal was exposed in the sac, and the costal articulations were so damaged that the ribs were freely movable. The periosteum of the spinal canal was congested, but was still intact, and there had been no escape of blood into the canal or elsewhere. The spinal cord did not appear to be injured, though the tissue seemed rather soft.

The heart was slightly enlarged. Valves of right side normal except some tricuspid incompetency. Aortic valves somewhat thickened and roughened by the remains of old vegetations; mitral valve slightly thickened, but competent.

The lungs were emphysematous anteriorly, and the posterior portions were filled with hypostatic exudate.

The kidneys were granular and slightly reduced in weight.

The liver showed some passive congestion.

The brain showed some evidence of chronic meningo-encephalitis, commonly found in paresis. The arteries were apparently not diseased.

There were no symptoms indicating the presence of aneurism. The patient was unable to stand or walk a few days previous to his death, but this was probably from extreme weakness or cerebral disease, as, though the aneurism was in close proximity to the cord, there were no evidences of pressure or injury. The immediate cause of death was probably the œdema and hypostasis of the lungs, a not uncommon ending of paresis.

Report of Freedmen's Hospital, 1901.



FREEDMEN'S HOSPITAL—SURGICAL CLINIC.



Report of Freedmen's Hospital, 1901.

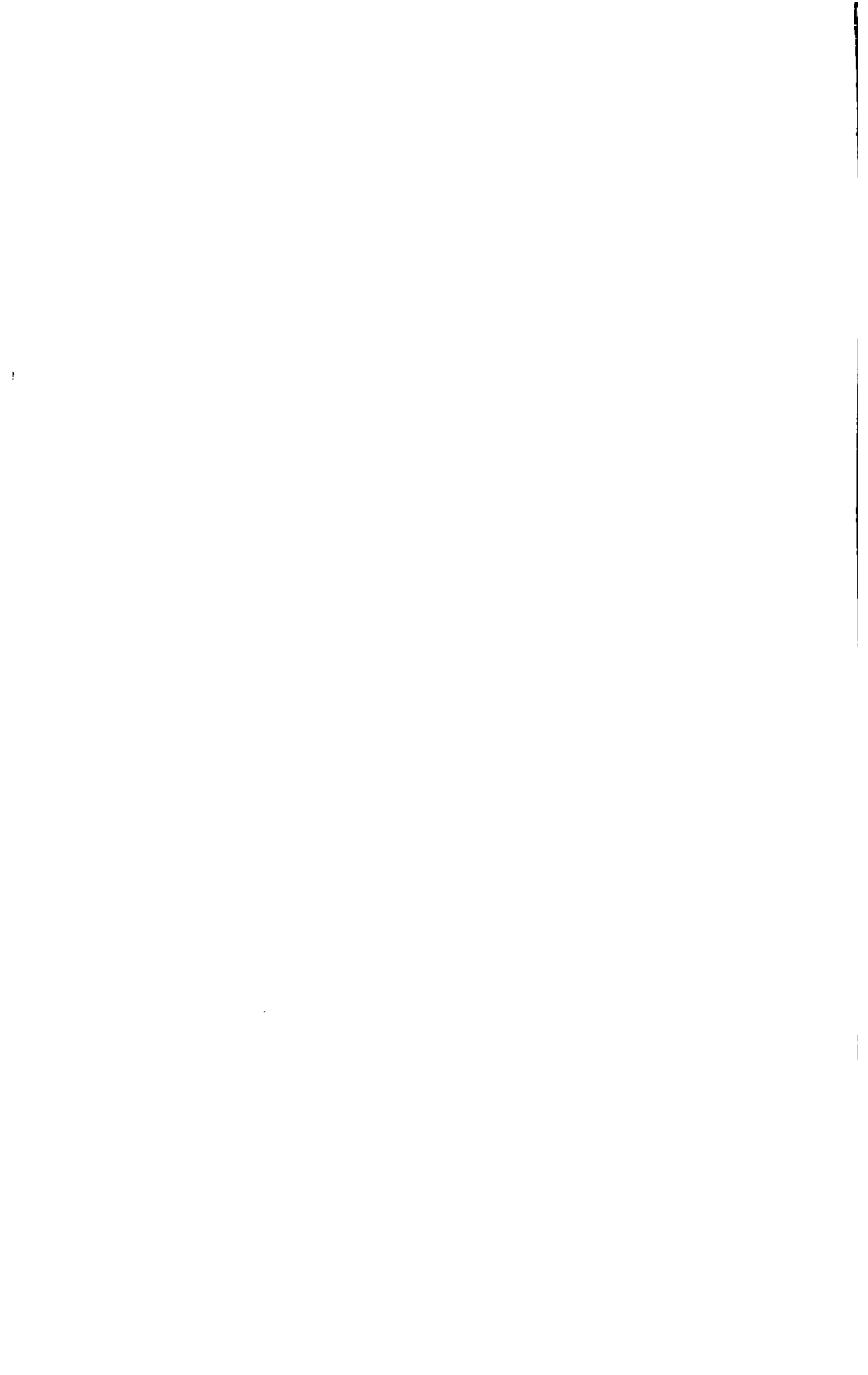


FREEDMEN'S HOSPITAL—AMPHITHEATER.

Report of Freedmen's Hospital, 1901.



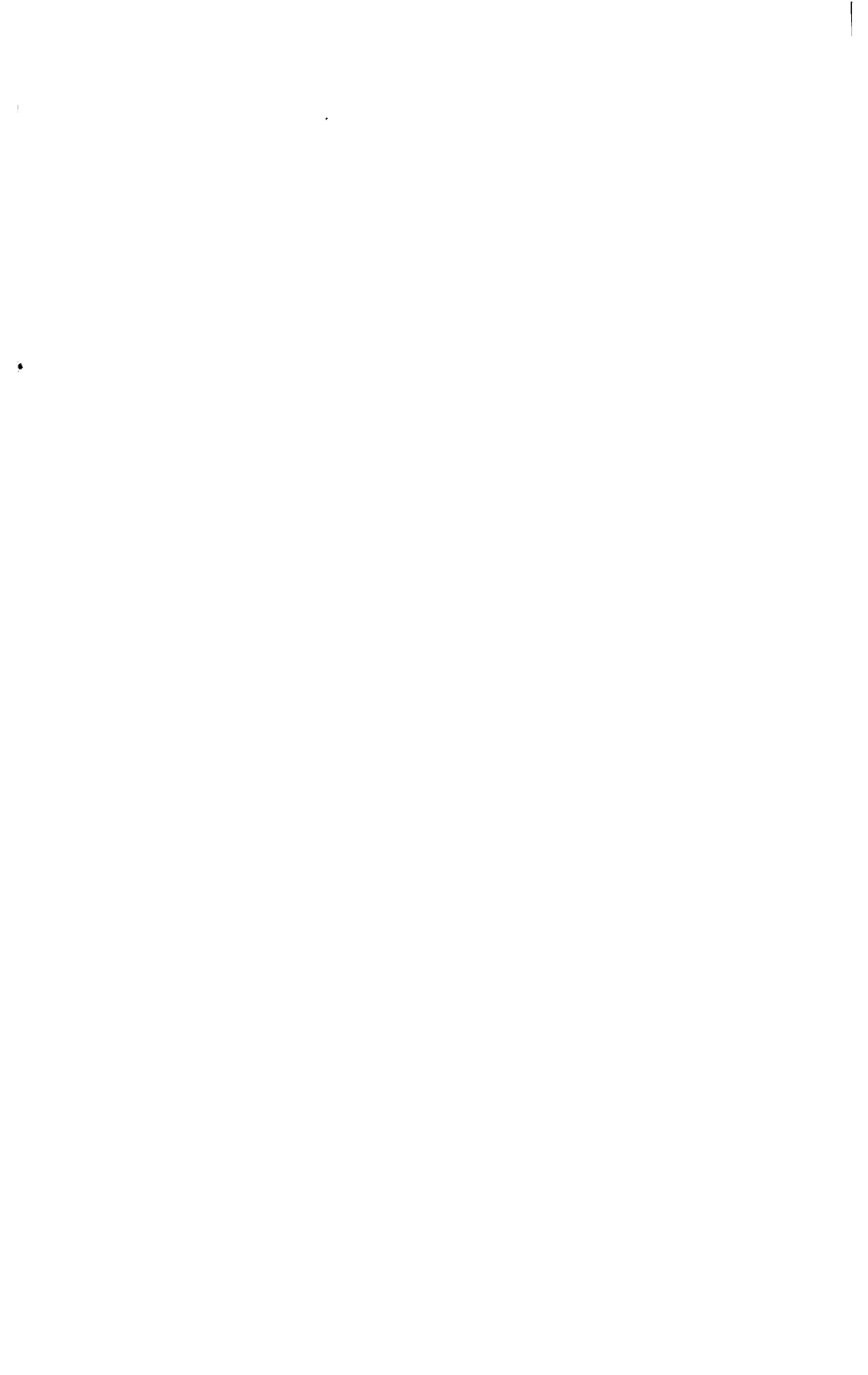
FREEDMEN'S HOSPITAL—HOWARD UNIVERSITY MEDICAL SCHOOL AND ADMINISTRATIVE BUILDING.



Report of Freedmen's Hospital, 1901.



FREEDMEN'S HOSPITAL—ENTRANCE.

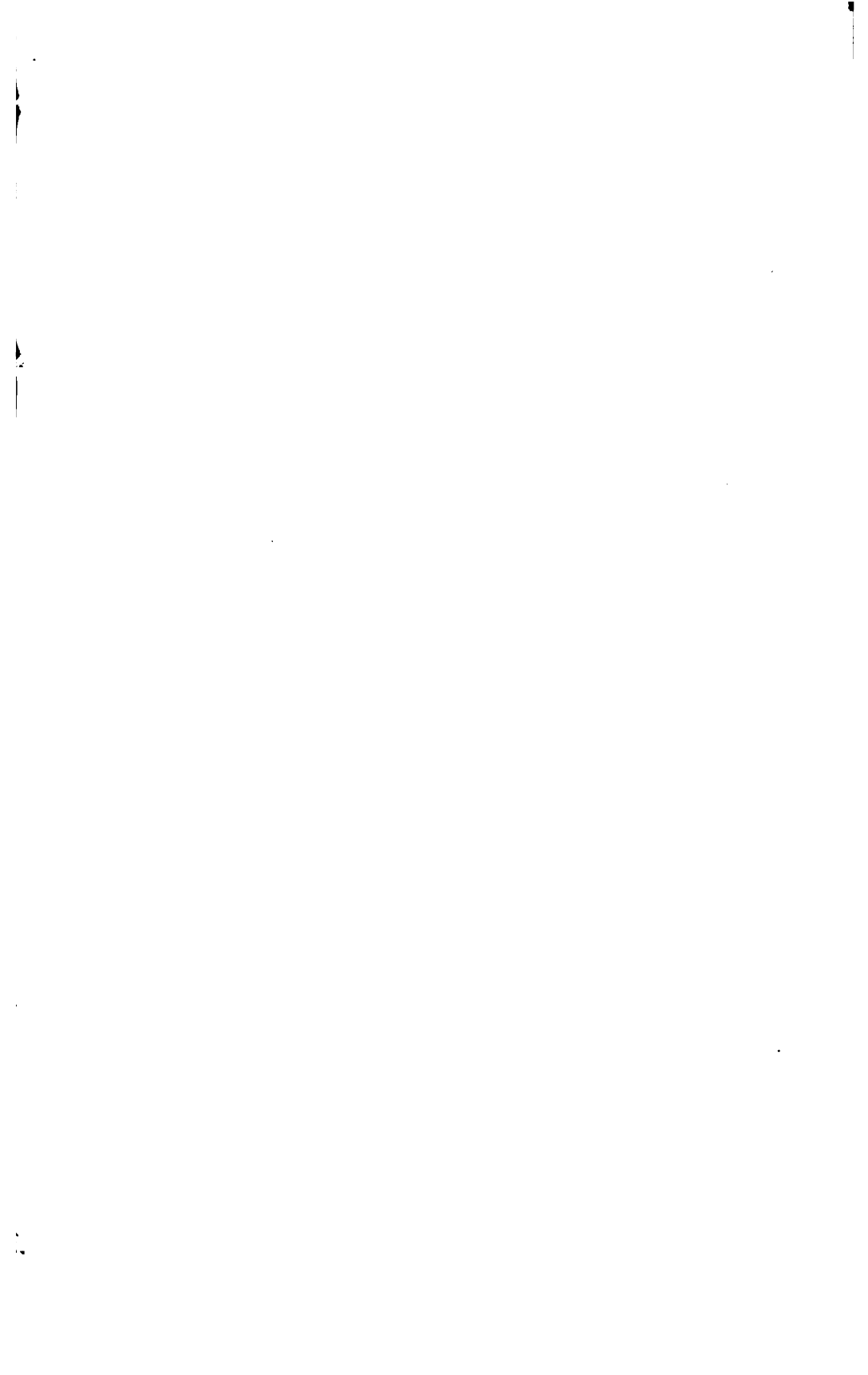


Report of Freedmen's Hospital, 1901.



FREEDMEN'S HOSPITAL—CLERKS' OFFICE.



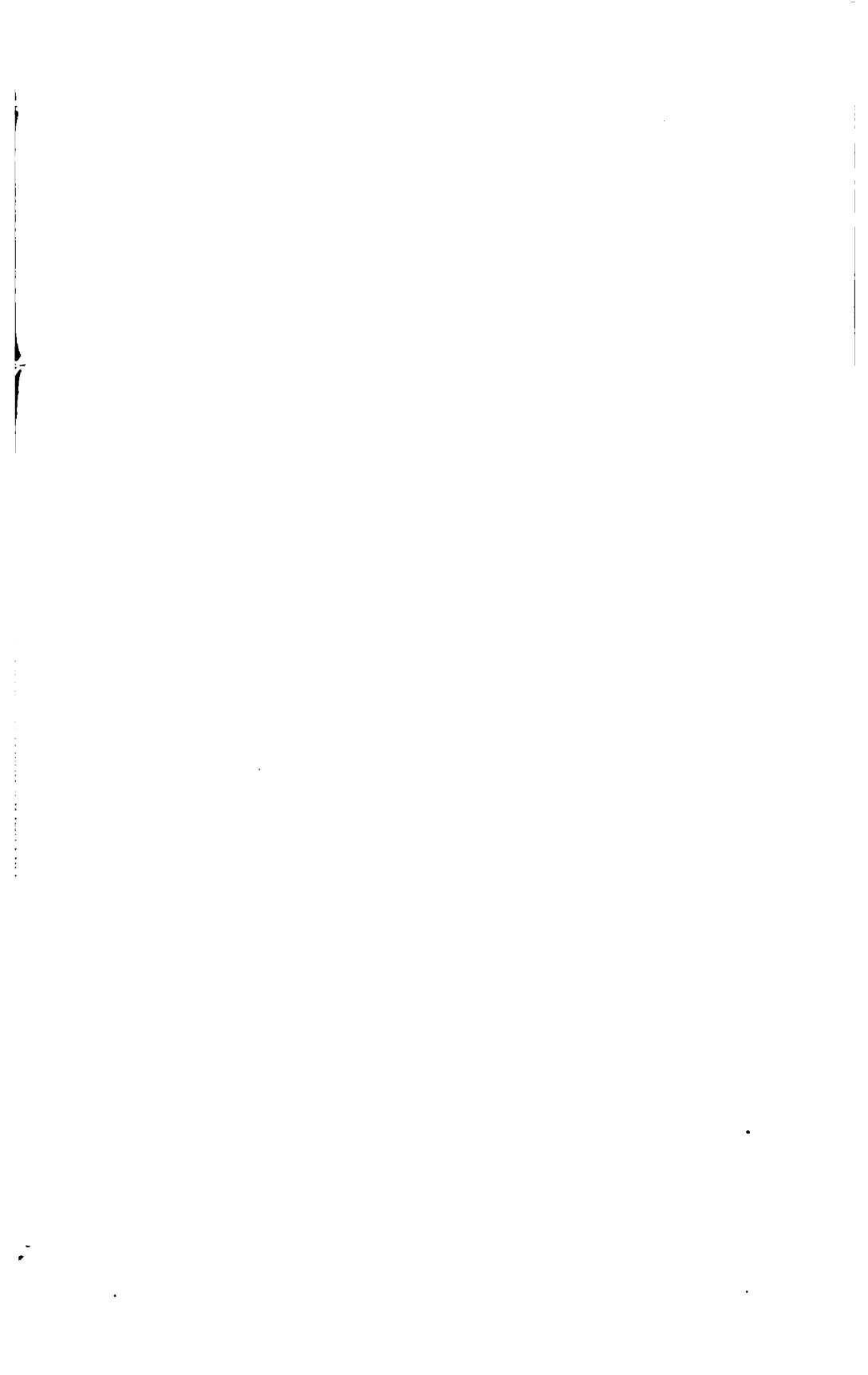


Report of Freedmen's Hospital, 1901.

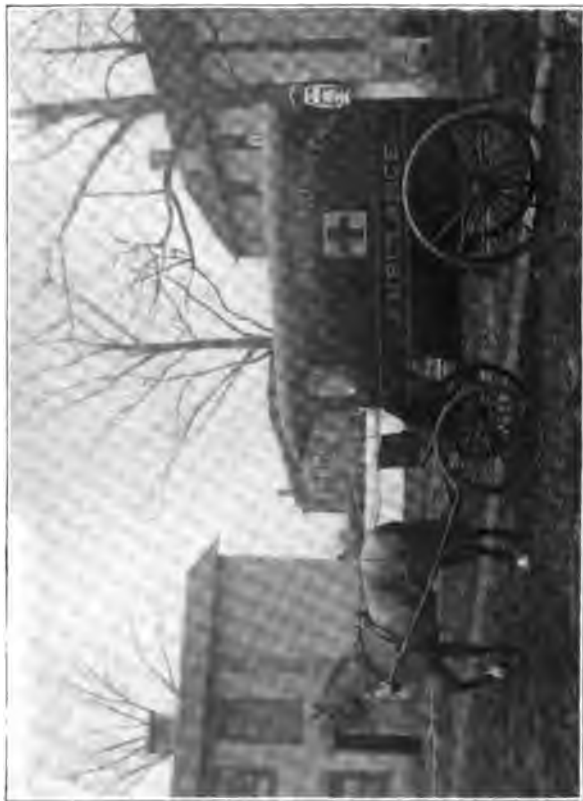


FREEDMEN'S HOSPITAL—OFFICE OF SURGEON-IN-CHIEF

NUN
1901



Report of Freedmen's Hospital, 1901.



FREEDMEN'S HOSPITAL—AMBULANCE.

REPORT OF THE FREEDMEN'S HOSPITAL.

Board of Visitors.—George W. Evans, John J. Darby, M. D., William T. Pierson.
Medical and Surgical Staff.—Surgeon in chief: Austin M. Curtis, A. M., M. D. First Assistant Surgeon and executive officer: William A. Warfield, M. D. Consulting Staff—Gynecologist: J. Taber Johnson, M. D. Obstetrician: Thomas C. Smith, M. D. Visiting Staff—Physicians: John Brackett, M. D.; G. N. Perry, M. D.; S. R. Watts, M. D.; Thomas Martin, M. D.; Robert W. Brown, M. D. Surgeons: E. A. Balloch, A. M., M. D.; N. F. Graham, M. D. Obstetrician: John R. Francis, M. D. Gynecologists: F. J. Shadd, M. D., Charles I. West, M. D. Ophthalmologist and Otologist: E. Oliver Belt, M. D. Bacteriologist: W. W. Alleger, M. D. Pathologists: D. S. Lamb, M. D.; J. M. Lamb, M. D. Out-Patient Department—John W. Mitchell, M. D.; A. W. Tancil, M. D.; E. Oliver Belt, M. D.; S. R. Watts, M. D.; F. J. Shadd, M. D.; C. B. Purvis, M. D.; E. D. Williston, M. D.; W. H. Hughes, jr., M. D.; C. I. West, M. D.; W. K. Scott, M. D. Internes—Spencer P. Irvin, jr., M. D.; H. S. McCard, M. D.; T. E. Bryant, M. D.; Thomas Coleman, M. D.; Directress of Training School, Sara I. Fleetwood; Pharmacist, Robert B. Tyler, M. D., Phar. D.; Assistant Pharmacist, Rufus M. Stokes; Matron, Annie A. Simms; Clerk, Harry Cardozo; Assistant Clerk, Hattie M. Curtis.

WASHINGTON, D. C., August 30, 1901.

SIR: I have the honor to submit herewith a report of the public business transacted at the Freedmen's Hospital for the fiscal year ending June 30, 1901.

The very brief period during which the entire work of the hospital has been under my supervision has not afforded me sufficient opportunity to collect and formulate the necessary data usually embodied in the annual report for this institution. I have been in charge of the hospital less than one month, and have been compelled to continue the executive and professional part of the general work here just at the point where my predecessor, Dr. A. M. Curtis, left off. This sudden widening of the field of my duties has left me but little time for collecting material for this report.

The general work of the hospital during the past year has been conducted along the lines indicated in our last annual report, and with but few exceptions the officials and employees of the hospital have rendered faithful and efficient service in the discharge of their duties. But it has been a matter of quite frequent comment that the surgical work of the hospital has been permitted to develop at the expense of the medical.

This fact has been made apparent by the increased per cent of loss in medical cases and by the facility with which the needs of the surgical department were satisfied while those of the medical department were often unheeded.

This situation hinders the progress of the general work in the hospital, and thwarts its development along comprehensive and practical lines. In my opinion neither of these branches of the hospital work should be allowed to grow at the expense of the other; both should be developed together and provided with equal facilities.

PATIENTS.

The appended tables will show in classified detail the number of patients treated by the hospital corps during the past year.

It will be seen that the whole number of patients received into the hospital represents an increase of only eight over the number received

during the previous year, while the whole number treated in the hospital and out-patients department by the hospital corps during the past year represents a decrease of 388 from the total number treated during the preceding year.

The out-patient cases represent those who come to the hospital for treatment at the various clinics and then return to their homes immediately, and the decrease in the total number of cases treated is due to the decrease in the number of out-patient cases.

RECOMMENDATIONS.

The temporary character of my present position here suggests to me the impropriety of attempting any comprehensive recommendations concerning any change in the policy or personnel of the hospital, but, on the other hand, the very urgent needs of the hospital impels me to call the attention of the Department to them.

First and foremost is the urgent need of a new building large enough to gather all the various wards of the hospital under a single roof, and equipped with all the needed appliances of a modern hospital. This need has been strongly presented to the Department by every surgeon in chief for the past ten years, and its urgency grows stronger and the necessity more apparent year by year. The most casual inspection of the present buildings will disclose their utter unfitness for the successful work of the hospital. They are old, antiquated frame structures, difficult to heat, troublesome to ventilate, and inaccessible.

Another pressing need is that of a large boiler in the engine room. Those now in use are of a very ancient type and have been already condemned by the District authorities. A new horizontal tubular boiler could easily do the work of both the old boilers, and in a far more efficient and satisfactory manner.

We are in need of new ranges in the culinary department, those in use at present being unfit for service and beyond repairs.

Another need is that of a new laundry outfit. The present apparatus in use is old, worn out, weakened by frequent repairs, and wholly inadequate for efficient service.

The appropriation for the present fiscal year will not admit of these repairs and extra needs, and I urgently recommend that an appropriation of \$1,500 be asked of Congress, which sum would place facilities at our disposal that would greatly enlarge the usefulness of the hospital, increase the efficiency of its service, and reduce the unnecessary labor of its officers and employees.

I would recommend that the number of internes be increased from four to six, since the stress of labor upon those now in service makes too great a demand upon their time to be consistent with efficient professional service.

The hospital during the past year has not, I regret to say, received from all of the visiting staff that attention and help which the needs of the institution demanded. But since this staff is composed of physicians who have achieved success in their several lines of professional work, and who are expected to serve the hospital without pay, this observation is submitted more as the statement of a fact than as the making of a criticism. It is hoped that a beneficial change in this respect will be worked out in the near future.

During the past year a change was made in the management of the Training School for Nurses, and that department is now under better discipline, the marked results of which appear more distinctly in the

higher standard of excellence in the general service of the nurses. Further information in regard to the Training School for Nurses will be found in the appendix to this report.

Respectfully submitted.

W. A. WARFIELD,
Acting Surgeon in Chief.

HON. ETHAN A. HITCHCOCK,
Secretary of the Interior.

Summary for the fiscal year 1900-1901.

	White.		Colored.		Total.
	M.	F.	M.	F.	
Remaining July 1, 1900	4	2	58	74	138
Admitted	184	33	1,065	965	2,247
Births in hospital	2	2	85	78	167
Total number under care					2,552
Discharged:					
Recovered					1,277
Improved					657
Unimproved					99
Not treated					56
Died					172
Births					162
Total number discharged					2,425
Remaining July 1, 1901					127
Treated in out-patient department, medical	120	70	2,746	2,111	5,047
Treated in out-patient department, surgical	36	15	425	71	547
Treated in out-patient department, gynecological		11		199	210
Total	156	96	3,171	2,381	5,804
Revisits to this department					1,824
Prescriptions compounded					8,473
Emergencies					454
Operations	28	6	270	206	510
Patients treated in hospital and dispensary					8,356

Table showing admissions, discharges, and number remaining.

	Remaining July 1, 1900.	Admitted.				Total.	Discharged.					Total.	Remaining July 1, 1901.
		White.		Colored.			Recovered.	Improved.	Unimproved.	Not treated.	Died.		
		M.	F.	M.	F.								
Adentitis:													
Tubercular cervical	1			2	3	6	1	3				4	2
Specific inguinal		1	1	4	1	7	4	3				7	
Inguinal		1		11	2	14	8	3		1		12	2
Inguinal bilateral				3	3	6	4					4	2
Inguinal suppurative				1		1							1
Alcoholism		4		4	1	9	2	7				9	
Adeno-sarcoma of breast					1	1	1					1	
Adeno-sarcoma of stomach				1		1				1		1	
Aortic insufficiency		1		2	1	4			4			4	
Asthma:													
Cardiac		2		6	15	23	2	16	1			19	4
Bronchial		1		5	3	9	4	2				6	3
Abortion					25	25	22	3				25	
Appendicitis				1	1	2						2	
Appendicitis, perforative				1	1	2				2		2	
Abscess:													
Pudendal					2	2	2					2	
Ischio-rectal	1			3	4	8	6					6	2
Pelvic					11	11	5			1		8	5
Hand		1		3	4	8	7	1				6	
Back		1		5	2	8	6	3				8	
Alveola				3	1	4	4					4	
Mammary					4	4	2					2	2
Antrum of Highmore				1		1	1					1	
Lumbar	1					1	1					1	
Tubo-ovarian					2	2	2					2	

Table showing admissions, discharges, and number remaining—Continued.

	Remaining July 1, 1900.	Admitted.					Discharged.					Remaining July 1, 1901.	
		White.		Colored.		Total.	Recovered.	Improved.	Unimproved.	Not treated.	Died.		Total.
		M.	F.	M.	F.								
Abcess—Continued.													
Prostatic with ruptured urethra.....				1		1	1					1	
Prostatic.....				1		1	1					1	
Ovarian.....	1				1	2	2					2	
Psoas.....					1	1	1					1	
Splenic, tubercular.....					1	1	1					1	
Anteversion of uterus with adhesions.....					2	2	2	2				2	
Ankyloglossia.....				1	1	2	2					2	
Atresia of vagina.....					2	2	2					2	
Aneurism:													
Popliteal.....				3		3	2	1				3	
Aortic.....				1		1	1				1	1	
Arthritis of knee.....					1	1	1	1				1	
Angioma.....					1	1	1					1	
Ankylosis of knee.....	1					1	1					1	
Births.....	10	2	2	85	78	177	172					172	5
Burn:													
Hand.....				3	3	7	4	3				7	
Arm.....						1	1					1	
Bronchitis:													
Acute.....	1	27	2	59	21	110	69	31	4	6		110	
Chronic.....		6		24	18	48	16	24	5	3		48	
Bite, dog.....				4	6	10	7	3				10	
Carcinoma:													
Stomach.....				1	3	4		2			2	4	
Breast.....					1	1	1					1	
Cervix uteri.....	2		1		10	13		7	4	1		12	1
Rectum.....				1	3	5		2		1	2	5	
Liver.....				3	2	5					4	4	1
Congestion, hepatic.....				3	2	5	2	3				5	
Cellulitis:													
Leg.....				2	1	3	3					3	
Hand.....				1	3	4	3	2				3	
Pelvic.....					3	3	3					3	
Arm.....				5		5	3	2				5	
Foot.....		1		3		4	2	2				4	
Cirrhosis, hepatic.....				2		2		1				1	1
Cataract.....	1				2	3	2	1				3	
Calculus, vesical.....				1	1	1	1					1	
Constipation, chronic.....		1		1	1	3	2	1				3	
Cholelithiasis.....				1		1		1				1	
Carbuncle.....				1		1		1				1	
Cephalalgia.....			1	5	4	10	5	4				9	1
Chancre.....	1	1				2	1	1				2	
Chancroid.....				3	1	4		3	1			4	
Cystitis, acute.....		1		1	2	4	3					3	1
Conjunctivitis, purulent.....				6	1	7	6	1				7	
Cyst, sebaceous.....				1	1	2	2					2	
Catarrh:													
Acute gastric.....	1					1	1					1	
Cyst of ovary.....	1					1	1					1	
Cystic degeneration of ovaries and salpingitis.....					6	6	6					6	
Dysmenorrhea.....				1	1	1		1				1	
Dysentery:													
Acute.....		4		8	1	13	7	6				13	
Chronic.....		1		4	1	6	2	2	1		1	6	
Dyspepsia.....	1	3		24	17	45	20	23				43	2
Debility, senile.....	7	1	1		3	12				2	3	5	7
Diphtheria ¹				4		4				3	1	4	
Dementia ²		2			2	4				4		4	
Delirium tremens.....				1		1		1				1	
Endocervicitis.....					6	6	3					3	3
Endocarditis.....				2	2	4					2	2	2
Erysipelas.....				1	1	2	1				1	2	
Empyema.....		1		4	2	7		3	4			7	
Elongated revula.....				2		2	1	1				2	
Epulis.....					2	2						2	
Eczeema.....	1	1		3	2	7	4	3				7	
Epithelioma of scalp.....					1	1						1	
Epistaxis.....				3	1	4	4					4	
Exophthalmic goitre.....					1	1			1			1	
Epilepsy.....				6	2	8		1	4	2		7	1

¹ Transferred to the contagious hospital.² Transferred to the insane asylum.

Table showing admissions, discharges, and number remaining—Continued.

	Remaining July 1, 1900.	Admitted.					Discharged.					Total.	Remaining July 1, 1901.	
		White.		Colored.		Total.	Recovered.	Improved.	Unimproved.	Not treated.	Died.			Total.
		M.	F.	M.	F.									
Endometritis					5	5	3	2				5		
Ectopic gestation					2	2	2					2		
Elongated prepuce				1		1	1					1		
Eclampsia, puerperal					2	2						2		
Fracture:														
Radius				1		1							1	
Malar				3		3	3					3		
Radius and ulna				3		3	1					1		
Patella				2		2	2					2		
Skull, old				1		1		1				1		
Ribs				1		1	1					1		
Pott's				2		2	3					3		
Phalanx of finger				1		1	1					1		
Humerus	1	1			1	3	2				1	1	1	
Base of skull				1		1	1					1		
Clavicle		2			1	3	2					2		
Tibia and fibula				3		3	3					3		
Colles'							1					1		
Internal malleolus	1		1			2	2					2		
Furunculosis		1		3		4	2	2				4		
Frosted feet	2			2		4	2	3				5		
Foreign body in nose		1			1	1	1					1		
Fistula:														
Ischio-rectal				4		4	4					4		
Vesico-vaginal	2				1	3	1	2				3		
In ano	1			4	2	7	5				1	6	2	
Fatty degeneration of heart				1		1	3					1		
Fibroid, multiple of uterus	3					3	3					3		
Fibromata of uterus, multiple						6	6			1		6		
Fibromata of uterus, ovarian abscess and salpingitis					1	1	1					1		
Fibromata of uterus and double pyosalpinx					1	1	1				1	1		
Fibromata of uterus, with detached pedunculated portion					1	1	1					1		
Fibromata of uterus, with extensive adhesions					1	1		1				1		
Fibromata of uterus, complicated with pregnancy					1	1	1					1		
Fibromata of ovary, with adherent tube and cyst					1	1	1					1		
Gastritis:														
Acute	3			16	16	35	18	15	1			34	1	
Chronic		2		9	6	17	6	9	1			16	1	
Gonorrhoea	1			6	8	15	6					15		
Gonorrhoea and orchitis				1		1	1					1		
Gastralgia		3		8	6	17	10	3				13	4	
Gangrene of foot				1		1						1		
Gangrene of both feet					1	1				1		1		
Genu valgum					1	1		1				1		
Hemorrhage:														
Cerebral	3			8	4	15		2	2		9	13	2	
Pulmonary					1	1				1		1		
Hemoptysis				2		2	1	1				2		
Herpes zoster				2		2	1	1				2		
Hemorrhoids:														
External				3	2	5	4					4	1	
Internal				1	2	3	3					3		
Hypertrophy:														
Tonsils					1	1	1					1		
Prostate gland		1		1		2	1	1				2		
Hysteria		1			9	10	4	6				10		
Hordeolum					1	1	1					1		
Hernia:														
Inguinal, bilateral				1	1	2	2					2		
Inguinal, strangulated				4		4	4					4		
Inguinal	2			2	1	5	3			1		4	1	
Inguinal and lacerated perineum					1	1	1					1		
Inguinal and hydrocele					1	1	1					1		
Indigestion:														
Acute		6	1	30	19	56	25	30	1			56		
Intestinal	1			5		6	1	5				6		
Insufficiency:														
Mitral	2			7	8	17	4	5		6		15	2	
Aortic	1	1		2	1	5		1	4			5		

Table showing admissions, discharges, and number remaining—Continued.

	Remaining July 1, 1900.	Admitted.					Discharged.					Remaining July 1, 1901.	
		White.		Colored.		Total.	Recovered.	Improved.	Unimproved.	Not treated.	Died.		Total.
		M.	F.	M.	F.								
Iritis.....	1			8	9	18	11	6	1			18	1
Inanition.....				1		1						1	
Influenza.....		6		32	13	51	24	15			2	41	10
Insanity ¹				1		1					1	1	
Keloid.....				2		2	1	1				2	
Lumbago.....	1	5		23	18	47	28	15	2	2		47	
Luxation:													
Humerus.....		1		1		2	2					2	
Radius.....		1				1	1					1	
Patella.....				1		1	1					1	
Laceratid cervix and external hemorrhoids.....				1	1	1	1					1	
Lipoma of shoulder.....				1	1	2	2					2	
La grippe.....		3		17	6	26	9	11				20	6
Malaria:													
Intermitting.....		11	2	46	19	78	59	15	3	1		78	
Remitting.....	3	5	1	17	11	37	25	11		1		37	
Tertian.....		1	8	4	17	30	22	7			1	30	
Quotidian.....				7	2	9	3	4	2			9	
Menopause, disorders of.....					3	3		2				2	1
Meningitis:													
Tubercular.....				3	2	5					5	5	
Cerebro-spinal.....				1		1					1	1	
Myofibroma of uterus.....	1				2	3	3					3	
Myfibroma of uterus multiple.....				1	1	1	1					1	
Myofibroma of uterus and pyosal- pinx.....					1	1	1					1	
Mania, acute.....		1				1				1		1	
Myocarditis.....				2		2					1	1	1
Marasmus.....				1	1	2					2	2	
Nephritis:													
Chronic interstitial.....		2		4	2	8					6	6	2
Acute interstitial.....	2	1		1	3	7		3			2	5	2
Acute parenchymatous.....				1	3	4		1	1		2	4	
Chronic parenchymatous.....	2			1	1	4			1		2	3	1
Neurasthenia.....				5	5	10	3	6	1			10	
Necrosis, toe.....	1					1	1					1	
Ophthalmia neonatorum.....				1		1	1					1	
Orchitis.....		2				11	6	4				10	1
Otorrhea.....			1		3	4	2	2				4	
Osteomyelitis of tibia.....				2		2							2
Obstruction, intestinal.....					2	3	3					3	
Osteomyelitis of inferior maxil- lary.....	1					1		1				1	
Onychomycosis.....					1	1	1					1	
Otitis media.....					1	1		1				1	
Opacity of cornea.....				1		1		1				1	
Pregnancy.....	23				195	218	193			10		203	15
Peritonitis:													
Acute.....	2			2	3	7	3	2			2	7	
Tubercular.....	1			1	4	6	2	1			2	5	1
Pericarditis.....	1			2	3	6		4		1	1	6	
Poison:													
Carbolic acid.....				1	1	2	2					2	
Iodine.....					1	1	1					1	
Ptyalism.....					1	1	1					1	
Papillomata of bladder.....			1			1		1				1	
Patulous foramen ovale.....				1		1					1	1	
Pneumonia:													
Lobar.....				10	5	15	5				10	15	
Lobular.....		1		4	2	7	4	1			2	7	
Pyosalpinx, bilateral.....					2	2	2					2	
Pyosalpinx, bilateral, and cystic degeneration of ovaries.....					3	3	3					3	
Pyosalpinx and cystic degenera- tion of ovary.....					2	2	2					2	
Pleurisy:													
Acute.....				4	7	11	6	5				11	
With effusion.....				1		1	1					1	
Phimosis.....				4		4	4					4	
Polypus.....					1	1	1					1	
Rheumatism:													
Acute articular.....	8	3	1	11	6	29	11	10	6			27	2
Chronic muscular.....		7		32	18	57	26	20	7			53	4
Acute muscular.....	9			6	1	16	10	4				14	2
Gonorrheal.....		1		5	3	9	4	4	1			9	

¹ Transferred to the insane asylum.

Table showing admissions, discharges, and number remaining—Continued.

	Remaining July 1, 1900.	Admitted.					Discharged.						Remaining July 1, 1901.
		White.		Colored.		Total.	Recovered.	Improved.	Unimproved.	Not treated.	Died.	Total.	
		M.	F.	M.	F.								
Retained placentas.....					7	7	7					7	
Retroversion of uterus.....					2	2	1	1				2	
Rubeola ¹			1		1	2				2		2	
Retinitis.....	1				1	1	1					1	
Sepsis, puerperal.....					2	2	1				1	2	
Stomatitis.....					1	1	1					1	
Supernumerary of digits.....					1	1	1					1	
Stricture of urethra.....	1	1		6		8	5	3				8	
Stricture of rectum and external hemorrhoids.....					1	1	1					1	
Syphilis:													
Secondary.....	4	2	1	16	22	45	16	17	7	3		43	2
Tertiary.....	4	1	1	9	9	24	6	5	5	5	1	22	2
Synovitis of knee.....	1	1		1	3	6	4	2				6	
Sarcoma of testicle.....				1		1							1
Sarcoma of uterus and cystic ovary.....					1	1	1					1	
Salpingitis:													
Acute.....					6	6	4	2				6	
Chronic.....					2	2	2					2	
And ovarian abscess.....					1	1	1					1	
Subluxation:													
Elbow joint.....				1	1	2	1	1				2	
Wrist.....		1				2		2				2	
Inferior maxillary.....					1	1	1					1	
Shoulder.....				2		2						2	
Ankle.....		1				1		1				1	
Thumb.....		1				1	1					1	
Tuberculozoid:													
Pulmonary.....	9	4		31	17	61		6	6		44	56	5
Testicles.....				1		1	1					1	
Ribs.....				1		1		1				1	
General.....				5	2	7					7	7	
Acute milinary.....				2	2	4		1			8	4	
Knee joint.....	1					1		1				1	
Typhoid fever.....	2			41	22	65	36	1		1	25	63	2
Tonsillitis:													
Acute.....		1		24	17	42	35	7				42	
Follicular.....	2	1	1	15	9	28	21	7				28	
Tetanus.....					1	1					1	1	
Ulcer, varicose of leg.....	1			1	3	5	2	3				5	
Ulcer, chronic of leg.....	1			10	5	16	6	5	5			16	
Ulcerated cicatrix of old stump.....				1		1	1					1	
Volvulus of sigmoid flexure.....				1		1					1	1	
Varicella ¹				6	1	7				7		7	
Wounds:													
Leg, granulating.....				1		1							1
Arm, incised.....		3	1	25	10	39	25	14				39	
Scalp, incised.....		4		21	8	33	30	3				33	
Hand, incised.....		2	1	13	4	20	10	10				20	
Foot, incised.....			1	6	3	10	4	6				10	
Shoulder, incised.....		2		7	3	12	6	6				12	
Face, contused.....		2		5	3	10	6	4				10	
Back, contused.....	1	3		11	3	18	8	10				18	
Hand, contused.....		1		9	3	13	3	10				13	
Leg, contused.....		2		9	5	16	10	6				16	
Scalp, contused.....		3	1	20	17	41	20	21				41	
Foot, contused.....		1		4	4	9	6	3				9	
Hip, contused.....				3	1	4	3	1				4	
Leg, lacerated.....		2		8	3	13	10	3				13	
Scalp, lacerated.....		4		27	9	40	15	25				40	
Hand, lacerated.....		1	1	12	4	18	8	10				18	
Face, lacerated.....		3		9	5	17	7	10				17	
Arm, lacerated.....		1		5	3	9	5	4				9	
Foot, lacerated.....				3	2	5	1	4				5	
Hand, gunshot.....				5	1	6	4	2				6	
Arm, gunshot.....				2		2	2					2	
Hand, punctured.....				2	1	3	2	1				3	
Throat, incised (suicide).....		1				1					1	1	
Thigh, bullet.....				1		1	1					1	
Leg, bullet.....		1				1	1					1	
Total.....	138	186	35	1,150	1,043	2,552	1,439	667	99	58	172	2,425	127

¹ Transferred to the contagious hospital.

Table showing number of surgical operations and results.

Operation.	Diagnosis.	White.		Colored.		Total.	Recovered.	Improved.	Unimproved.	Died.	Remaining July 1, 1901.
		M.	F.	M.	F.						
Amputations of—											
Thigh	Gangrene following ligation of femoral artery for popliteal aneurism.			1		1		1			
Thigh	Tubercular osteo-myelitis of femur and knee joint.			2		2	1	1			
Cervix uteri.....	Carcinoma of cervix	1		1		2		1			1
Foot.....	Moist gangrene			3		3	1	1		1	
Foot.....	Tubercular osteo-myelitis			2		2	1				1
Leg, upper third.....	Gangrene of foot and leg			1		1				1	
Leg, upper third.....	Painful stump.			1		1				1	
Knee joint	Old infected gunshot wound of leg.			1		1					
Arm, upper third..	Tubercular osteo-myelitis			1		1					1
Fingers.....	Supernumary digitis			1		1		1			
Arthroctomy	Tubercular osteo-myelitis of knee joint.			1		2		2			
Bacon's operation	Hemorrhoids and fistula in ano.										
Bassini's operation	Strangulated inguinal hernia			2		3	3				
Bassini's operation and extirpation.	Inguinal hernia and adenitis			1		1	1				
Bassini's operation and circumcision.	Inguinal hernia and phimosis			1		1	1				
Cœliotomy:											
Pan-hysterectomy.	Sarcoma of uterus, with cystic ovaries.					1	1	1			
Hystero-salpingo-oophorectomy.	Myo-fibromata					4	4	4			
Hystero-salpingo-oophorectomy.	Tubo-ovarian abscess and cystic degeneration of ovary.					2	2	2			
Hystero-salpingo-oophorectomy.	Cystic degeneration of ovaries and salpingitis.					6	6	6			
Hystero-salpingo-oophorectomy.	Ectopic gestation, left tubal abortion, right cystic ovary.					1	1	1			
Hystero-salpingo-oophorectomy.	Fibroma of uterus, complicated by pregnancy.					1	1	1			
Hystero-salpingo-oophorectomy.	Fibromata of uterus, multiple					6	6	5		1	
Hystero-salpingo-oophorectomy.	Fibromata of uterus and double pyosalpinx.					1	1			1	
Appendectomy.....	Appendicitis			1		1	1				
Appendectomy.....	Appendicitis, ruptured, and general peritonitis.			2		2				2	
Porro's Cesarean section.	Pregnancy, contracted pelvis, and cystic degeneration of ovaries.					1	1	1			
Oophorectomy.....	Ovarian abscess, bilateral					1	1	1			
Oophorectomy.....	Cystic degeneration of ovaries					1	1	1			
Salpingo-oophorectomy.	Fibroma of uterus, with adherent tube and cyst.					1	1	1			
Exploratory	Tubercular peritonitis					1	1			1	
Exploratory	Tuberculosis of uterus					1	1			1	
Exploratory	Large inflammatory mass and extensive adhesions.					1	1			1	
Salpingo-oophorectomy.	Pyosalpinx and cystic ovary					6	6	4			2
Salpingectomy.....	Ectopic gestation					1	1	1			
Salpingo-oophorectomy.	Fibroid of uterus, with detached pedunculated portion attached to sigmoid flexure.					1	1	1			
Oophorectomy.....	Cystic degeneration of ovary					2	2	2			
Cystotomy, perineal, and drainage.	Large prostatic abscess			1		1	1				
Curettement.....	Endometritis					2	2	1	1		
Castration	Cysto-sarcoma of testicles			1		1					1
Cystotomy, perineal.....	Ruptured urethra and extravasation of urine.			1		1				1	
Curettement.....	Retained placenta					7	7	7			
Crainectomy	Depressed fracture of skull			1		1	1				
Cauterization	Dog bite of hand	2		2		4	3	1			
Cauterization	Horse bite of arm			1		1		1			
Dilatation and curettement.	Dysmenorrhœa					1	1				
Dilatation of cervix.....	Stenosis of cervix uteri and tubercular peritonitis.					1	1			1	
Dilatation	Atresia of vagina					3	3	2	1		
Dilatation	Nondeveloped uterus					1	1		1		

Table showing number of surgical operations and results—Continued.

Operation.	Diagnosis.	White.		Colored.		Total.	Recovered.	Improved.	Unimproved.	Died.	Remaining July 1, 1901.
		M.	F.	M.	F.						
Dilatation and excision.	Stricture of urethra and external hemorrhoids.	.....	.....	.....	.....	1	1	1	.....	.....	.....
Denudation and suturing.	Vesico-vaginal fistula of entire vaginal septum.	.....	.....	.....	.....	1	1	.....	.....	.....	1
Denudation and suturing.	Vesico-vaginal fistula	.....	.....	.....	.....	2	2	.....	.....	.....	2
Denudation, repair, and perineorrhaphy.	Vesico-vaginal fistula and rectocele.	.....	.....	.....	.....	2	2	1	1	.....	.....
Extirpation	Inguinal adenitis.	.....	.....	11	8	14	11	8	.....	.....	.....
Extirpation	Inguinal adenitis, bilateral	1	.....	4	1	6	6	1	.....	.....	.....
Extirpation	Cervical adenitis	.....	.....	2	2	4	4	3	1	.....	.....
Extirpation	Cervical adenitis, suppurative	.....	.....	.....	.....	1	1	.....	.....	.....	1
Extirpation	Lipoma of shoulder	.....	.....	1	1	2	2	.....	.....	.....	.....
Extirpation	Angioma	.....	.....	1	1	1	1	.....	.....	.....	.....
Extirpation	Sebaceous cyst	.....	.....	1	1	1	1	.....	.....	.....	.....
Extirpation of eyeball.	Extensive corneal ulceration	.....	.....	1	1	1	1	.....	.....	.....	.....
Excision	Tubercular ostitis of acromial end of clavicle.	.....	.....	1	.....	1	.....	1	.....	.....	.....
Excision	External hemorrhoids	.....	.....	1	1	2	2	.....	.....	.....	.....
Excision	Cortical irritation from old cicatrix of dura.	.....	.....	1	.....	1	.....	1	.....	.....	.....
Excision	Sarcoma of superior maxillary	.....	.....	1	.....	1	.....	.....	1	.....	.....
Excision	Keloid	.....	.....	1	.....	1	.....	1	.....	.....	.....
Excision	Painful cicatrix	.....	.....	1	.....	1	1	.....	.....	.....	.....
Excision	Epulis	.....	.....	1	1	1	1	.....	.....	.....	.....
Excision	Elongated uvula	.....	.....	1	.....	1	.....	.....	.....	.....	.....
Excision	Lympho-sarcoma of neck	.....	.....	1	.....	1	.....	.....	.....	.....	1
Excision	Elongated prepuce	.....	.....	4	.....	4	4	.....	.....	.....	.....
Excision	Hypertrophy of tonsils	.....	.....	1	1	1	1	.....	.....	.....	.....
Excision	Epithelioma of scalp	.....	.....	1	1	1	.....	.....	1	.....	.....
Excision and ligation.	Varicose veins of both legs	.....	.....	1	1	1	1	.....	.....	.....	.....
Excision and extraction of three molars.	Necrosis of superior maxilla	.....	.....	1	.....	1	.....	1	.....	.....	.....
Excision and suturing.	Urethral fistula	.....	.....	1	.....	1	1	.....	.....	.....	.....
Excision and cauterization.	Condylomatous growth of vulva	.....	.....	1	.....	1	1	.....	.....	.....	.....
Excision and cauterization.	Warts	.....	.....	1	.....	1	1	.....	.....	.....	.....
Enucleation	Cataract	.....	.....	1	.....	1	1	.....	.....	.....	.....
External urethrotomy.	Stricture of urethra	.....	.....	6	.....	6	6	1	.....	.....	.....
External urethrotomy.	Stricture of urethra and prostatic abscess.	.....	.....	1	.....	1	1	.....	.....	.....	.....
Halstead's operation	Adeno-sarcoma of breast	.....	.....	1	.....	1	1	.....	.....	.....	.....
Halstead's operation	Recurrent carcinoma of breast	.....	.....	1	.....	1	.....	1	.....	.....	.....
Halstead's operation	Carcinoma of breast	.....	.....	1	.....	1	.....	.....	.....	.....	1
Hysterectomy, vaginal.	Epithelioma of cervix and sub-peritoneal fibroid.	.....	.....	1	.....	1	.....	1	.....	.....	.....
Incision and drainage.	Cellulitis of foot	.....	.....	1	.....	1	1	.....	.....	.....	.....
Incision and drainage.	Cellulitis of hand	.....	.....	3	4	7	6	1	.....	.....	.....
Incision and drainage.	Cellulitis of arm	.....	.....	4	.....	4	3	1	.....	.....	.....
Incision and drainage.	Paras abscess	.....	.....	1	1	1	.....	.....	.....	.....	1
Incision and drainage.	Tubercular abscess of hip joint	.....	.....	1	.....	1	.....	1	.....	.....	.....
Incision and drainage.	Tubercular abscess of shoulder	.....	.....	1	.....	1	.....	.....	1	.....	.....
Incision and curettage.	Inguinal adenitis, suppurative	.....	.....	2	.....	2	1	1	.....	.....	.....
Incision and curettage.	Ischio-rectal abscess, bilateral	.....	.....	3	2	5	5	.....	.....	.....	.....
Incision and curettage.	Large furuncle	.....	.....	1	.....	1	.....	.....	.....	.....	.....
Incision and curettage.	Old sinus of stump	.....	.....	1	.....	1	.....	.....	.....	.....	1
Incision and curettage.	Fistula in ano	.....	.....	1	1	1	1	.....	.....	.....	.....
Incision, curettage, and drainage.	Fistula in ano and specific ulcer	.....	.....	1	1	1	1	.....	.....	.....	.....
Incision, curettage, and drainage.	Rectal sinus	.....	.....	1	.....	1	1	.....	.....	.....	.....
Incision, curettage, and drainage.	Alveola abcess	.....	.....	2	1	3	3	.....	.....	.....	.....
Incision, curettage, and drainage.	Tubercular abscess of neck	.....	.....	1	.....	1	.....	1	.....	.....	.....
Incision, curettage, and drainage.	Mammary abscess	.....	.....	2	.....	2	2	.....	.....	.....	.....
Incision, curettage, and drainage.	Peri-urethral abscess	.....	.....	2	.....	2	1	1	.....	.....	.....
Incision, curettage, and drainage.	Scrotal extravasation of urine	.....	.....	1	.....	1	1	.....	.....	.....	.....
Incision, curettage, and drainage.	Vulvo-vaginal abscess	.....	.....	1	.....	1	1	.....	.....	.....	.....
Incision, curettage, and drainage.	Suppurative arthritis of shoulder joint.	.....	.....	1	.....	1	.....	1	.....	.....	.....

Table showing number of surgical operations and results—Continued.

Operation.	Diagnosis.	White.		Colored.		Total.	Recovered.	Improved.	Unimproved.	Died.	Remaining July 1, 1901.
		M.	F.	M.	F.						
Incision and extraction.	Bullet in external condyle of femur.			1		1	1				
Incision and extraction.	Needle in index finger			1	1	2	2				
Incision, crucial.	Carbuncle.			1		1	1				
Iridectomy	Occluded pupil.			1		1		1			
Iridectomy	Prolapsed iris			1		1		1			
Lithotomy, median.	Vesical calculus.			1		1	1				
Ligation, femoral artery in Scarper's triangle.	Popliteal aneuriam.			2		2	2				
Osteotomy.	Genu valgum					1	1				
Posterior colpotomy.	Pelvic abscess.					11	5			1	5
Posterior colpotomy.	Pyosalpinx, bilateral					1	1				
Posterior colpotomy.	Pelvic exndate and suppuration					3	3				
Plastic repair.	Fistula in ano			1		1	1				
Prostectomy	Prostatic abscess			2		2	1	1			
Permeorrhaphy	Lacerated perineum		1		26	27	27				
Radical cure	Hydrocele.			2		2	2				
Radical cure	Inguinal hernia.			2		2	2				
Radical cure	Inguinal hernia, strangulated.			4		4	4				
Radical cure	Inguinal hernia and lacerated perineum.					1	1				
Radical cure	Inguinal hernia and hydrocele			1		1	1				
Reduction	Fracture of middle phalanx			1		1	1				
Reduction	Fracture of ribs			2		2	2				
Reduction	Fracture of radius and ulva.			3		3	1				2
Reduction	Fracture of tibia and fibula.			3		3	3				
Reduction	Fracture of radius.			3		3	3				
Reduction	Fracture of clavicle	2		1		3	2				1
Reduction	Fracture, Colle's.				1	1	1				
Reduction	Fracture of internal malleolus.			1		1	1				
Reduction	Fracture of molar			3		3	3				
Reduction	Fracture of patella			2		2	2				
Reduction	Fracture, Potts's.			2	1	3	3				
Reduction	Fracture of humerus	1				1	2				
Resection	Tubercular osteomyelitis of humerus.					1	1		1		
Suturing	Lacerated wound of leg.	2		8	3	13	10	3			
Suturing	Lacerated wound of scalp.	4		27	9	40	15	25			
Suturing	Lacerated wound of hand.	1	1	12	4	18	8	10			
Suturing	Lacerated wound of face.	3		9	5	17	7	10			
Suturing	Lacerated wound of arm.	1		5	3	9	5	4			
Suturing	Lacerated wound of foot.			3	2	5	1	4			
Suturing	Incised wound of arm.	3	1	25	10	39	25	14			
Suturing	Incised wound of scalp.	4		21	8	33	30	3			
Suturing	Incised wound of hand.	2	1	13	4	20	10	10			
Suturing	Incised wound of foot.		1	6	3	10	4	6			
Suturing	Incised wound of shoulder.	2		7	3	12	6	6			
Splenectomy	Abscess of spleen.					1	1	1			
Tachelorrhaphy.	Lacerated cervix, bilateral					1	1	1			
Tachelorrhaphy and perineorrhaphy.	Lacerated cervix and perineum.					1	1	1			
Whitehead's operation	External hemorrhoids			2	1	3	3				
Total		28	6	270	206	510	340	133	6	14	17

Table showing work done in obstetrical department.

Months.	White.		Colored.		Total.	Forceps.	Placenta previa.	Lacerations.	Post-partum hemorrhage.	Puerperal sepsis.	Presentations.					Podalic version.	Multigravida.	Primigravida.	Positions.			
	Male.	Female.	Male.	Female.							Head.	Face.	Breech.	Shoulder.	Hands.				Feet.	L. O. A.	R. O. A.	L. O. P.
July.....	1	...	8	8	12	1	1	4	...	1	12	1	7	5	9	8	...		
August.....	...	...	10	6	16	...	...	1	1	15	...	1	...	...	10	6	10	5	...
September.....	...	...	5	7	12	1	...	2	...	12	...	...	...	...	8	4	11	1	...
October.....	...	...	9	8	17	...	...	2	...	16	...	1	...	...	10	10	4	3	...
November.....	1	...	6	6	13	...	...	2	...	13	...	...	...	...	6	7	8	5	...
December.....	...	...	9	8	17	...	...	3	...	16	1	...	...	...	9	8	10	6	1
January.....	...	2	7	11	20	1	...	5	...	20	...	...	1	12	8	18	2	...		
February.....	...	...	3	7	10	...	...	1	1	9	...	1	...	8	8	8	1	1	...
March.....	...	...	8	7	15	1	...	3	...	14	...	1	...	12	3	10	5	...		
April.....	...	...	6	5	11	...	...	1	...	10	1	...	...	6	5	11	...	...		
May.....	...	...	6	6	12	...	...	1	...	12	...	...	...	4	8	12	...	...		
June.....	...	...	8	4	12	2	...	1	...	10	1	...	1	6	6	10	2	...		
Total...	2	2	85	78	167	6	1	26	2	2	159	1	3	1	1	2	2	95	72	127	34	6

Stillbirths: Colored, male, 18; female, 8; total, 26.

Table showing number of emergencies.

Months.	White.		Colored.		Total.	Months.	White.		Colored.		Total.
	M.	F.	M.	F.			M.	F.	M.	F.	
July.....	11	1	29	9	50	February.....	4	3	20	8	25
August.....	3	...	13	4	20	March.....	10	1	24	11	46
September.....	5	1	22	8	36	April.....	9	1	28	5	43
October.....	5	...	24	7	36	May.....	3	2	25	11	41
November.....	5	1	20	11	37	June.....	7	...	26	18	46
December.....	6	2	25	7	40	Total.....	76	13	266	99	454
January.....	8	1	10	5	24						

Out-patient department.

	Medical.				Surgical.				Gynecological.		Total.
	White.		Colored.		White.		Colored.		W.	C.	
	M.	F.	M.	F.	M.	F.	M.	F.			
Adenitis:											
Cervical.....					5		32	4			41
Inguinal.....						1	10				10
Axillary.....							5	2			8
Amenorrhoea										18	18
Anaemia				20	8						28
Asthma:											
Bronchial.....		6	1	42	19	1					68
Cardiac.....		10		15	31						56
Abscess:											
Lumbar.....						1	8	1			10
Alveolar.....						1	3				4
Ischio-rectal.....							2	1			3
Alcoholism		12		6							18
Anteversion										5	5
Bubo					8		17	5			25
Bronchitis:											
Acute.....		20	3	409	429						861
Chronic.....		5	1	200	191						397
Capillary.....		8		31	25						59
Cystitis:											
Acute.....		3		25	10						38
Chronic.....		1	1	7	6						15
Constipation		5		195	241						441
Contusion:											
Arm.....						1		1			3
Leg.....								2			2
Head.....						3		8	2		13

Out-patient department—Continued.

	Medical.				Surgical.				Gynecological.		Total.
	White.		Colored.		White.		Colored.		M.	F.	
	M.	F.	M.	F.	M.	F.	M.	F.			
Metorrhagia.....											15
Meningitis.....			4								4
Menopause, disorders of.....									1		12
Neurasthenia.....		8	19	29							51
Neuralgia.....			20	15							35
Nephritis:											
Acute interstitial.....	1		20	8							29
Chronic interstitial.....			10	2							12
Acute parenchymatous.....			15	5							20
Chronic parenchymatous.....			8	6							14
Odontalgia.....	1		6	10							17
Orchitis:											
Acute.....					2						24
Chronic.....					1		22				10
Ovaritis:											
Acute.....								1	21		22
Chronic.....									6		6
Pharyngitis:											
Acute.....	1	8	40	9							58
Chronic.....		1	22	5							28
Pleurisy:											
Acute.....		1	8	4							13
Chronic.....		1	4	1							6
Pneumonia.....			6								6
Phimosis.....					1		21				22
Pertussis.....			4								4
Pleurodynia.....			3								3
Pericarditis.....		1	9	1							11
Retroversion of uterus.....									5		5
Rheumatism:											
Acute muscular.....		1	15	8							24
Chronic muscular.....	1		8	2							11
Acute articular.....		2	12	5							19
Chronic articular.....		1	10	3							14
Synovitis:											
Acute.....			6	3							9
Chronic.....			2	2							4
Syphilis:											
Primary.....					2	26	5				33
Secondary.....					3	40	18				61
Tertiary.....					1	15	2				18
Stomatitis.....		1									1
Sciatica.....			4								4
Stricture of urethra.....						10					10
Tonsillitis:											
Acute.....		5	60	30							95
Chronic.....		5	25	20							50
Tuberculosis:											
Pulmonary.....			41	16							57
Hip joint.....			2								2
Ulcer of leg.....			5			3	2				10
Urticaria.....		3	20								23
Vertigo.....		4	10	15							29
Total.....	120	70	2,746	2,111	36	15	425	71	11	199	5,804

NOTE—Revisits to this department, 1,824; number of prescriptions compounded, 8,478.

Table showing occupation of patients.

Occupation.	White.		Colored.		Total.	Occupation.	White.		Colored.		Total.
	M.	F.	M.	F.			M.	F.	M.	F.	
Agent.....	1		1		2	Laborer.....	48		621		664
Apprentice.....	1				1	Laundress.....				26	26
Artist.....			1		1	Laundryman.....			1		1
Baker.....	2				2	Lawyer.....			1		1
Barber.....	2		19		21	Machinist.....	1				1
Bartender.....			1		1	Maid.....				2	2
Bell boy.....			5		5	Mason.....	1				1
Blacksmith.....	1		3		4	Messenger.....			8		8
Boatman.....	2		1		3	Metal polisher.....	1				1
Bookbinder.....		1			1	Miner.....	1		8		9
Bookkeeper.....			2		2	Minister.....			6		6
Bootblack.....			2		2	Motorman.....	1				1
Bricklayer.....	3		1		4	Musician.....			5		5
Butcher.....	4		5		9	News dealer.....			7		7
Butler.....			2		2	No occupation.....	25	7	58	55	140
Cabman.....			1		1	Nurse.....	1		1	9	11
Carpenter.....	3		3		6	Painter.....	7		7		14
Carpet cleaner.....			1		1	Paper hanger.....			1		1
Carpet layer.....	1				1	Peddler.....			2		2
Chambermaid.....				8	8	Photographer.....	1				1
Charwoman.....				1	1	Physician.....	2		3		5
Clerk.....	6		11		16	Plasterer.....			1		1
Coachman.....	1		8		9	Plumber.....	2		2		4
Collector.....			1		1	Policeman.....	3				3
Conductor.....	3				3	Porter.....			15		15
Confationer.....	1				1	Press feeder.....	1				1
Cooper.....	1				1	Printer.....	2		2		4
Cook.....	2	2	21	25	50	Pupil.....	12	1	90	80	133
Coppersmith.....	2				2	Sailmaker.....	1				1
Dairyman.....			3		3	Sailor.....	3				3
Dog doctor.....			1		1	Salesman.....			1		1
Domestic.....		20		756	776	Seamstress.....	1	2		9	11
Dressmaker.....				7	7	Shoemaker.....	1		6		7
Driver.....	7		25		32	Soldier.....	6		5		11
Dyer.....			1		1	Steam fitter.....	1				1
Engineer.....	2		4		6	Stonecutter.....			1		1
Errand boy.....			2		2	Storekeeper.....			2		2
Expressman.....			2		2	Tailor.....	1		3		4
Farmer.....	3		28		31	Teacher.....			4	7	11
Fireman.....			2		2	Teamster.....	3		9		12
Florist.....	3				3	Tinsmith.....	1				1
Gardener.....	1		5		6	Trained nurse.....				5	5
Glass molder.....	1				1	Undertaker.....			1		1
Grocer.....			1		1	Unknown.....	2		3	4	9
Hairdresser.....				1	1	Upholsterer.....			1		1
Hatter.....	1				1	Vendor.....	3				3
Hostler.....	1		7		8	Walter.....			84		84
Huckster.....			6		6	Watchman.....	1		4		5
Ice man.....			1		1	Weaver.....	1				1
Iron worker.....	1				1	Well driller.....			1		1
Janitor.....	1		3		4						
Jockey.....			1		1						
						Total.....	184	83	1,065	965	2,247

Table showing nativity of patients.

Nativity.	White.		Colored.		Total.	Nativity.	White.		Colored.		Total.
	M.	F.	M.	F.			M.	F.	M.	F.	
Alabama.....	1		9	2	12	South Carolina.....			24	6	30
California.....	1		2		3	Tennessee.....			4	3	7
Colorado.....			1		1	Texas.....			4	1	6
Connecticut.....			1	1	2	Unknown.....	2		6	2	10
Delaware.....	2		1	1	4	Vermont.....	1				1
District of Columbia.....	51	18	274	258	596	Virginia.....	25	9	406	421	860
Florida.....			2	2	4	West Virginia.....	1	2	9	5	16
Georgia.....			8	1	9	Wisconsin.....	1		1	1	2
Illinois.....			2		2	Wyoming.....			1		1
Indiana.....	1		1	1	3	British Guiana.....				1	1
Indian Territory.....			1		1	Canada.....	1				1
Iowa.....			1		1	China.....			1		1
Kansas.....			1		1	England.....	1		1	1	3
Kentucky.....	1		6	1	8	France.....	1				1
Louisiana.....	1		2		3	Germany.....	13				13
Maine.....		1			1	Greece.....	1				1
Maryland.....	14	4	207	206	430	Ireland.....	19				19
Massachusetts.....	1		1	1	2	Italy.....	2				2
Michigan.....	1		1	1	3	Norway.....	1				1
Mississippi.....			2	2	4	Nova Scotia.....	1	1			1
Missouri.....	2		4		6	Portland.....	1				1
New Jersey.....	2		1	1	4	Sweden.....	1				1
New Hampshire.....	1				1	Switzerland.....	1	1			2
New York.....	8		10	5	23	Wales.....	1				1
North Carolina.....	1		53	18	72	West Indies.....			5	5	10
Ohio.....	3		3	3	9						
Pennsylvania.....	18	2	10	16	46	Total.....	184	33	1,065	965	2,247
Rhode Island.....	2		2		4						

Number admitted each year for the past twenty-seven years.

Year ending June 30—	Num-ber.	Year ending June 30—	Num-ber.	Year ending June 30—	Num-ber.
1875.....	190	1884.....	1,509	1893.....	2,422
1876.....	319	1885.....	1,794	1894.....	2,801
1877.....	500	1886.....	1,923	1895.....	2,476
1878.....	519	1887.....	2,017	1896.....	2,596
1879.....	642	1888.....	1,997	1897.....	2,815
1880.....	819	1889.....	2,074	1898.....	2,355
1881.....	992	1890.....	2,392	1899.....	2,874
1882.....	1,102	1891.....	2,375	1900.....	2,427
1883.....	1,378	1892.....	2,351	1901.....	2,414

APPENDIX.

REPORT OF TRAINING SCHOOL FOR NURSES.

FREEDMEN'S HOSPITAL,
Washington, D. C., July 1, 1901.

Sir: I have the honor to submit the annual report of this training school for nurses for the year ending June 30, 1901.

The final examinations of the graduating class were not completed until the latter part of May. The graduating exercises took place in the Andrew Rankin Memorial Chapel, May 7, 1901, at which time the graduates, sixteen in number, were presented with diplomas by Dr. J. E. Rankin, president of Howard University.

Several of the nurses have had slight ailments from time to time in the course of the year, but nothing of a prolonged or serious nature except one instance. One having contracted smallpox while quarantined in a ward where a case had developed, was sent to the smallpox hospital.

The resignation of Miss Sarah C. Ebersole, the former efficient superintendent of nurses, and the appointment of two successors to the position within a year, necessarily made some interruption and irregularity in recitations and practical class work.

The regular lectures by the staff of physicians and the lectures and demonstrations on massage were continued without interruption. Judging from the examination papers, the class did not fall below the usual average.

It is gratifying to state that the nurses almost without exception manifest an interest in their work and are earnest and faithful in their effort to receive and to apply to their work the instruction given, as well as to cooperate with the authorities in measures taken to maintain the standard of the school.

Number of applications received during the year	192
Number of applicants taken into the school on probation	20
Number accepted	18
Number rejected	2
Number dismissed for cause	1
Number graduated	16
Number of nurses on staff June 30, 1901	29
Number of probationers	2
Number of male assistants	3

I desire to thank the physicians who have placed us under obligations by their kindly assistance in various ways, especially in the matter of lectures and instruction to the nurses. It is not amiss to mention Dr. E. A. Balloch personally for his faithful attendance upon sick nurses from time to time whenever they were in need of medical attention.

The faculty for the year was as follows, viz:

A. M. Curtis, A. M., M. D., gynecology and abdominal nursing.

E. A. Balloch, A. M., M. D., general surgery and bandaging.

W. A. Warfield, M. D., anatomy.

E. O. Belt, M. D., diseases of the eye and ear.

N. R. Jenner, M. D., obstetrics and care of infants.

J. W. Mitchell, M. D., materia medica.

William A. Jack, jr., M. D., physiology.

C. I. West, M. D., bacteriology and urinalysis.

F. E. Maxcy, M. D., hygiene and general medical nursing.

Miss Annie R. Combe, massage.

Miss S. C. Ebersole and Dr. E. A. Reynolds, dietetics.

Respectfully submitted.

SARA I. FLEETWOOD,
Superintendent of Training School.

W. A. WARFIELD, M. D.,
Acting Surgeon in Chief.

Graduates of 1901.

Margaret Anise Allen	Lexington, Ky.
Susan Cosler Barks	Bedford, Pa.
Berry N. Bowen Campbell.....	Montgomery, Ala.
Mary Louise Dey	Portsmouth, Va.
Mamie E. Hackley	Cincinnati, Ohio.
Carrie L. Hanson	Baltimore, Md.
Catherine S. Harrell	Greensburg, La.
Bessie Hunter	Purceleville, Va.
Eliza Ann Jackson	Richmond, Va.
Mary Jeannette Jones	Uniontown, Ala.
Gussie D. Powell.....	Richmond, Va.
Charlotte S. Rhone.....	Newbern, N. C.
Frances Adelle Robinson	Portsmouth, Va.
Bertha J. Thomas.....	Bellefonte, Pa.
Louisa Marion Walcott	Rockhill, S. C.
Florena Adelaide Whitley	Newbern, N. C.

List of graduates and their present occupation and whereabouts.

1896.

Name.	Occupation.	Residence.
Ashton, Luci V.....	Superintendent of nurses, Douglas Hospital...	Kansas City, Mo.
Blackburn, N. L.....	Private nurse	Philadelphia, Pa.
Burke, Julia.....	Now Mrs. Phillips	Jacksonville, Fla.
Fleetwood, Sara I.....	Superintendent of Training School, Freedmen's Hospital.	Washington, D. C.
Foust, Isabella L.....	Private nurse	Winston, N. C.
Gibson, Katherine C.....	Government Printing Office	Washington, D. C.
Green, Anna M.....	Private nurse	New York, N. Y.
Owens, Laura A.....	do.	Washington, D. C.
Pierce, Letitia.....	Now Mrs. Blair	Do.
Ricks, Antoinette M.....	Private nurse	Cleveland, Ohio.
Robinson, Annie B.....	Superintendent and matron, Good Samaritan Hospital.	Charlotte, N. C.
Shorter, Sarah A.....	Private nurse	Groton, Conn.
Simms, Annie A.....	Matron, Freedmen's Hospital	Washington, D. C.
Smith, Gertrude.....	Now Mrs. Thorn	Washington, D. C.
Tyler, Elizabeth.....	Private nurse	Northampton, Mass.

1897.

Caldwell, Amanda J.....	Now Mrs. Darrell	Dallas, Tex.
Combs, Annie R.....	Massage specialist	Washington, D. C.
Green, Lucille.....	Now Mrs. Tibbs	St. Paul, Minn.
Griffin, G. Josephine.....	Private nurse	Washington, D. C.
Haltheock, Ada.....	do.	Do.
King, Annie C.....	do.	Northampton, Mass.
Rollins, Willie M.....	do.	Washington, D. C.
Smith, S. May.....	Head nurse, Tuskegee Institute	Tuskegee, Ala.
Thomas, Annie M.....	Private nurse	Washington, D. C.
Thompson, Della R.....	Now Mrs. Davis	Vienna, Va.
Underhill, Katherine P.....	Now Mrs. Wm. Moten	Washington, D. C.
Webb, Eva P.....	Nurse, Edward Waters University	Jacksonville, Fla.
Warner, Florence A.....	Private nurse	Springfield, Mass.
Young, Lola E. M.....	do.	Greenville, S. C.

1898.

Bannister, Carrie J.....	Private nurse	Washington, D. C.
Bennett, Florence R.....	do.	Baltimore, Md.
Cabannis, Martha E.....	do.	Washington, D. C.
Carter, Edith M.....	do.	New Rochelle, N. Y.
Davis, Annie M.....	do.	Shelbyville, Tenn.
Ennis, Sarah J.....	Now Mrs. Brooks	Washington, D. C.
Gaines, Mary R.....	Head nurse, Providence Hospital	Baltimore, Md.
Geder, Isabella.....	Private nurse	Binghamton, N. Y.
Hurlong, Mary A.....	do.	Asheville, N. C.
King, Carrie M.....	Now Mrs. Foreman	Buffalo, N. Y.
Robinson, Amelia A.....	Private nurse	Nashville, Tenn.
Russell, Buby E.....	do.	Charlottesville, Va.
Stanton, Priscilla.....	Now Mrs. Todd	Pittsburg, Pa.
Sumby, Lillie May.....	Private nurse	Washington, D. C.
Valentine, J. Ella.....	do.	Lebanon, Ind.
Whitson, Clara E.....	do.	Rhinecliff, N. Y.

List of graduates and their present occupation and whereabouts—Continued.

1899.

Name.	Occupation.	Residence.
Banks, Effie P	Private nurse	Indianapolis, Ind.
Brown, Agnes M	do	Meyersdale, Pa.
Coleman, Georgia A	do	Atlanta, Ga.
Diamond, S. Matthew	Head nurse, Provident Hospital	St. Louis, Mo.
Francis, Bertha A	Private nurse	Nashville, Tenn.
Hairston, Lula C	Nurse, Slater School	Winston, N. C.
Hankins, Mintha C	Private nurse	Cleveland, Ohio.
Hendricks, Eliza R	do	Washington, D. C.
Henry, Lillian M	do	Philadelphia, Pa.
Hoge, Carrie M	do	Washington, D. C.
Keemer, Jessie E	Head nurse, Dr. Francis's sanitarium	Do.
McEwen, Irene O	Now Mrs. Green	Pensacola, Fla.
Rich, Anna	Private nurse	Hartford, Conn.
Scott, Helen V	Now Mrs. Cole	Swanboro, Ga.
Thompson, Isabella	Private nurse	New Orleans, La.
Wilson, Emma C	do	Montgomery, Ala.
Williams, Almira E	do	Lansingburg, N. Y.

1900.

Clarke, Mary F	Private nurse	Richmond, Va.
Hamilton, Fricilla	do	Montgomery, Ala.
Hawkins, Nannie E	do	Charlotte, N. C.
Hunton, Mary A	do	Washington, D. C.
Johnson, Hattie B	do	Mount Pleasant, N. C.
Lewis, Eva P	do	Manassas, Va.
Moody, Annie L	do	Washington, D. C.
Mickens, Macella C	do	Pittsburg, Pa.
Middleton, Haga H	do	Charleston, S. C.
Smith, Cora V	do	Petersburg, Va.
Winfield, Laura	do	Ware, Mass.

1901.

Allen, Margaret A	Private nurse	Lexington, Ky.
Barks, Susan C	do	Bedford, Pa.
Campbell, B. N	do	Montgomery, Ala.
Dey, Mary L	do	Still in the school.
Hackley, Mamie E	do	Do.
Hanson, Carrie L	do	Baltimore, Md.
Harrell, Catherine S	do	Greensburg, La.
Hunter, Bessie	do	Still in the school.
Jackson, Eliza A	do	Richmond, Va.
Jones, Mary J	do	Uniontown, Ala.
Powell, Gussie D	do	Still in the school.
Rhone, Charlotte S	do	Newbern, N. C.
Robinson, Frances A	do	Still in the school.
Thomas, Bertha J	do	Do.
Walcott, Louisa M	do	Rock Hill, S. C.
Whitley, Florence A	do	Still in the school.

CIRCULAR OF INFORMATION SENT APPLICANTS.

The Freedmen's Hospital Training School for Nurses is established to give a two years' course of training to women who desire to enter the profession of nursing.

Applicants may be received at any time during the year when there is a vacancy. Those wishing to obtain this course of instruction must apply to the surgeon in chief of the Freedmen's Hospital, and printed instructions will be furnished respecting the personal information to be given by applicants. Letters of application should be accompanied by a statement from a clergyman testifying to good moral character, and from a physician certifying to sound health and unimpaired faculties. Applicants must be between 21 and 35 years of age, of at least average height and physique, and must give satisfactory evidence of a general fitness of disposition and temperament for the work of nursing. It has been the practice of the hospital to appoint only unmarried colored women (this term includes widows). Upon the recommendation of the superintendent of the nurses and the approval of the surgeon in chief, they will be received one month on probation. During the month of trial and previous to being accepted as a pupil in the school the applicant must be prepared for an examination in reading, penmanship, simple arithmetic, and English

dictation. The examination is to test the applicant's ability to read aloud well, to write legibly and accurately, to understand arithmetic as far as fractions and per cent. and take notes of lectures. This amount of education is indispensable for a member of the school, but applicants are reminded that women of superior education and cultivation will be preferred.

During the probationary month, board, lodging, and laundry work are provided by the school. The probationer provides her own dress.

The training-school authorities reserve the right to terminate the connection of a pupil with the school at any time in case of misconduct, inefficiency, or neglect of duty. Those who prove satisfactory are accepted as pupils after signing a written agreement to remain at the school for two years, including the probationary month, and during that time to obey the rules of the school and hospital and to be subordinate to the authorities governing the same. Pupils reside at the home and serve as assistants in various departments of the hospital for the full two years. They are also expected to perform any duty assigned to them by the superintendent of nurses.

After the month of probation pupils are required, when on duty, to wear the dress prescribed by the hospital, which is a blue gingham, simply made, with white apron and cap and linen collar and cuffs. Probationers are not allowed to wear this dress.

In addition to their board and lodging, and a reasonable amount of laundry work, the nurses will be provided with uniforms, the necessary note and text books, also \$5 per month. This sum is not given as pay for services rendered, it being considered that their education during that time is a full equivalent for their services.

The day nurses are on duty from 7.30 a. m. to 7.30 p. m., with an hour off for dinner and additional time for exercise or rest. The pupils have a right to one-half of Sunday and are often given a half day in the week. A vacation of two weeks is allowed each year during the summer. In sickness the pupils are cared for gratuitously, but the time lost must be made up.

The course of instruction is given by visiting and resident physicians and surgeons at the bedside of the patients and by the superintendent and head nurse. A regular course of lectures, recitations, and demonstrations is also given, with examinations at stated periods. When the full term of two years is ended the nurses receive, if they pass the examination and are otherwise satisfactory, a diploma certifying to the course of training and practice.

Course of training.

The instruction includes:

- (1) The dressing of blisters, burns, sores, wounds; the application of fomentations, poultices, cups.
- (2) The administration of enemias and use of catheter.
- (3) The management of appliances for uterine complaints.
- (4) The best method of friction to the body and extremities.
- (5) The management of helpless patients; making beds, moving, changing, giving baths in bed, preventing and dressing bed sores, and managing positions.
- (6) Bandaging, making bandages and rollers, lining of splints.
- (7) The preparing, cooking, and serving of delicacies for the sick.

They will also be given instruction in the best practical methods of supplying fresh air, warming and ventilating sick rooms in the proper manner, and are taught to take care of rooms and wards, to keep all utensils perfectly clean and disinfected, to make accurate observations and reports to the physician of the state of the secretions, expectoration, pulse, skin, appetite, temperature of the body, intelligence as to delirium or stupor, breathing, sleep, condition of wounds, eruptions, formation of matter, effect of diet, or of stimulants, or of medicine, and to learn the management of convalescents.

The teaching will be given by visiting or resident physicians and surgeons at the bedside of the patients, and by the superintendent. Lectures, recitations, and demonstrations will take place from time to time, and examinations at stated periods.

When the full term of two years is ended, the nurses thus trained, on passing a satisfactory examination, each receive a diploma.

Questions to be answered by candidates.

- (1) Name in full.
- (2) Are you a single woman or widow?
- (3) If a widow, have you children; how many; their ages; how are they provided for?
- (4) Are you otherwise free from domestic responsibility so that you are not liable to be called away during the two-years' course?
- (5) Your present occupation or employment.

- (6) Your former employment, if any.
- (7) Your age on last birthday.
- (8) Date and place of birth.
- (9) Height.
- (10) Weight.
- (11) In what schools and places were you educated; and state what your advantages have been.
- (12) Have you ever been in any other hospital or training school?
- (13) Are you strong and healthy, and have you always been so?
- (14) Are your sight and hearing good?
- (15) Have you any physical defects?
- (16) Have you any tendency to pulmonary complaint?
- (17) Have you ever had any uterine disease?
- (18) The names in full of two persons to be referred to, not relatives; and state how long each has known you; if previously employed, one of these must be the last employer.
- (19) Have you read and do you clearly understand the regulations?

Contract signed by pupil nurses on entering the school.

WASHINGTON, D. C., ———, 190—.

I, ———, the undersigned, do hereby agree to remain two years, from date, a pupil of the above-named institution, and promise during that time to obey the rules of school and hospital and to be subordinate to the authorities governing the same.



WASHINGTON HOSPITAL FOR FOUNDLINGS, No. 1715 FIFTEENTH STREET NW.

REPORT OF THE WASHINGTON HOSPITAL FOR FOUNDLINGS.

Directors.—Z. T. Sowers, W. F. Mattingly, M. M. Parker, J. B. Lerner, A. B. Browne, Mrs. H. M. Hutchinson, Mrs. L. M. Smithe, Mrs. J. B. Kendall, Mrs. M. C. Stone, Mrs. A. M. Lothrop.

Officials.—Z. T. Sowers, president; Mrs. H. M. Hutchinson, vice-president; Mrs. L. M. Smithe, secretary; W. F. Mattingly, treasurer.

Medical staff.—Z. T. Sowers, M. D., chief; D. K. Shute, M. D., ophthalmologist; C. W. Richardson, M. D., laryngologist; M. F. Cuthbert, M. D., R. W. Baker, M. D., S. S. Adams, M. D., J. R. Wellington, M. D.

WASHINGTON, D. C., *August 1, 1901.*

SIR: The board of directors of the Washington Hospital for Foundlings have the honor to transmit to you the annual report of that institution for the fiscal year ended June 30, 1901, in accordance with your letter inviting attention to section 4 of the act of April 22, 1871:

		DEATHS.	
Number remaining in hospital June 30, 1900.....	47	1900—July.....	11
Number received during the year....	48	August.....	3
Total.....	95	September.....	4
Adoptions during the year.....	20	October.....	9
Transferred.....	1	November.....	2
Deaths.....	33	1901—February.....	2
Total.....	54	April.....	1
Number remaining June 30, 1901....	41	June.....	1
Daily average during the year.....	36	Total.....	33

Of this number 30 were under 9 months of age, 2 were 1 year old, and 1 was 2 years old.

Physician's report.

Diagnosis.	Cured.	Improved.	Died.	Total.	Diagnosis.	Cured.	Improved.	Died.	Total.
Bronchitis, acute.....			1	1	Fever, typhoid.....	3	1	4	8
Cholera infantum.....			1	1	Grippe.....	9			9
Collitis entero.....			2	2	Inanition.....			5	5
Convulsions, uræmic.....	1			1	Indigestion.....	3			3
Cough, whooping, exhaustion.....			1	1	Indigestion, gastrointestinal.....	1			1
Cyst on eye.....	1			1	Malaria.....	1			1
Debility, congenital.....			3	3	Marasmus.....			3	3
Diarrhea, acute.....		4		4	Measles.....	9			9
Diphtheria.....	1			1	Meningitis, tubercular.....			2	2
Dysentery.....		5		5	Ophthalmia.....	1			1
Ecsema.....	1			1	Palate deformed.....			1	1
Enteritis.....	1			1	Syphilis, congenital.....			2	2
Enteritis, gastro.....	1			1	Tuberculosis.....			1	1
Erysipelas.....			2	2					
Exhaustion, heat.....			2	2	Total.....	32	10	33	75

Financial statement.

ASSETS.	
Estimated value of real estate	\$140,000.00
Estimated value of personal property (consisting of furniture, equipment, and supplies on hand)	1,000.00
Accumulated endowment or sinking fund (consisting of mortgages, notes, bonds, accounts, etc., payable to the institution, and cash on hand or in bank belonging to endowment, building, or permanent funds)	None.
Total assets	<u>141,000.00</u>
LIABILITIES.	
Notes payable by the institution	3,800.00
Other notes, accounts, or obligations not contracted for current expenses	None.
Total liabilities	<u>3,800.00</u>
Net assets	<u>137,200.00</u>

Receipts and expenditures for the year ending June 30, 1901.

RECEIPTS.	
From balance from last year	422.98
From private sources	1,471.09
From appropriation	6,000.00
Total receipts	<u>7,894.07</u>

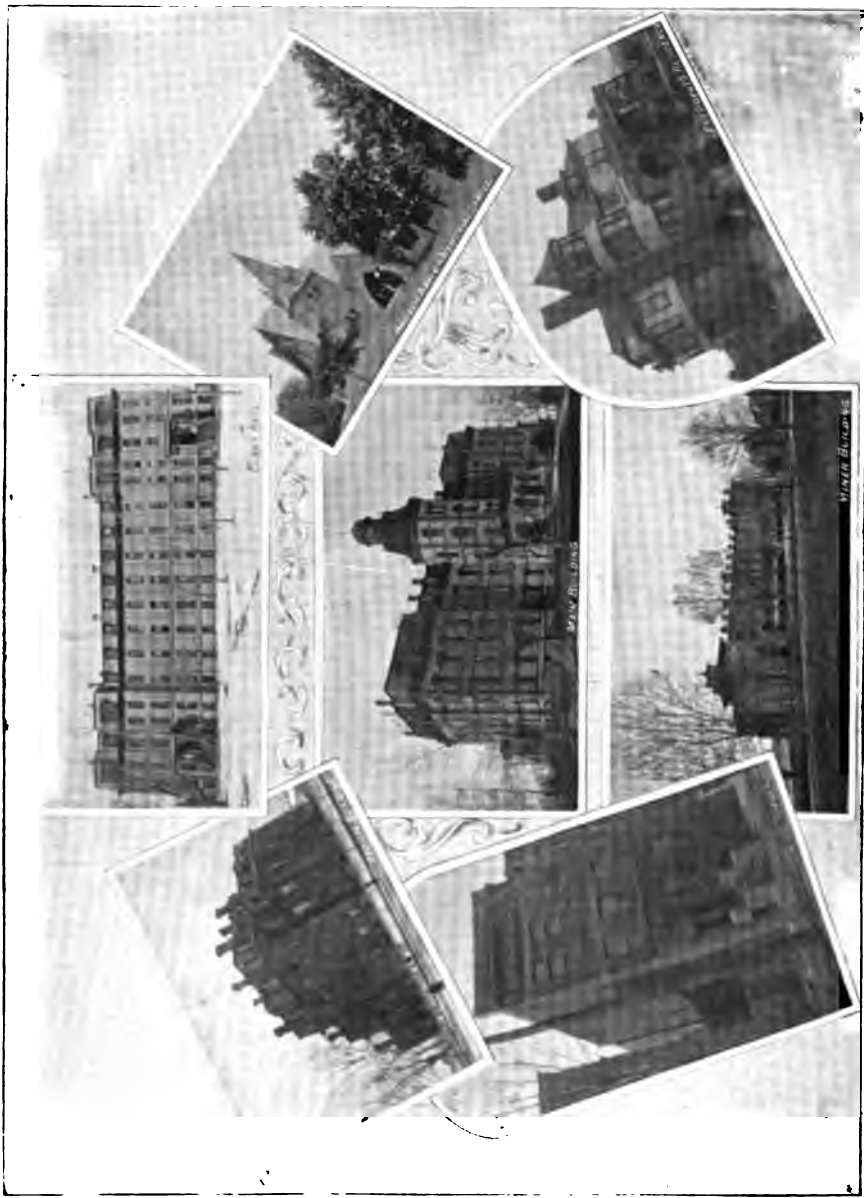
EXPENDITURES.	
For salaries	3,294.02
For medicine, surgical supplies, and instruments	106.86
For repairs to maintain buildings	505.25
For real estate and permanent improvements	None.
For general maintenance not included above	3,870.30
Total expenditures	<u>7,776.43</u>
Balance in bank June 30, 1901	117.64
Total balance	117.64
Estimate for appropriation for 1903	6,000.00

In order to carry on the work of beneficence the board is compelled to ask that the appropriation of \$6,000 may be continued for 1902-3.

Respectfully submitted by the board of directors.

Z. T. SOWERS, *President.*

The SECRETARY OF THE INTERIOR.



UNIVERSITY BUILDINGS.

HOWARD UNIVERSITY.

BOARD OF TRUSTEES.

Rev. JEREMIAH EAMES RANKIN, D. D., LL. D., President.
Gen. CHARLES H. HOWARD, Chicago, Ill.
Gen. GEORGE W. BALLOCH, A. M., LL. D., Washington, D. C.
FRANCIS H. SMITH, Washington, D. C.
JOHN F. COOK, Washington, D. C.
Rev. A. F. BEARD, D. D., New York City.
WILLIAM BALLANTYNE, Washington, D. C.
Rev. FRANK J. GRIMKE, D. D., Washington, D. C.
Hon. JOHN EATON, LL. D., Washington, D. C.
EDWARD M. GALLAUDET, LL. D., Washington, D. C.
Maj. Gen. O. O. HOWARD, LL. D., Burlington, Vt.
HENRY E. PELLEW, Washington, D. C.
BRINARD H. WARNER, Washington, D. C.
JAMES H. MERIWETHER, Washington, D. C.
Rev. TEUNIS S. HAMLIN, D. D., Washington, D. C.
Hon. JOHN R. LYNCH, Washington, D. C.
Rev. Bishop BENJAMIN TUCKER TANNER, LL. D., Philadelphia, Pa.
Hon. JOB BARNARD, Washington, D. C.
Rev. CHARLES H. RICHARDS, D. D., Philadelphia, Pa.
Rev. WM. V. TUNNELL, S. T. B., Washington, D. C.
Rev. ALEXANDER MACKAY SMITH, D. D., Washington, D. C.
Judge STANTON J. PELLE, Washington, D. C.
Bishop BENJ. F. LEE, D. D., Wilberforce, Ohio.

THE HONORARY BOARD.

Rev. DANFORTH B. NICHOLS, M. D., D. D., Yankton, S. Dak.
Hon. WILLIAM B. ALLISON, Dubuque, Iowa.
JOHN A. COLE, Chicago, Ill.
FRANCIS WAYLAND, LL. D., New Haven, Conn.
Hon. JOSEPH D. SAYERS, Texas.
S. V. WHITE, Brooklyn, N. Y.
Hon. GEORGE F. HOAR, Massachusetts.
ANDREW LANGDON, Buffalo, N. Y.
Hon. JOSEPH H. CHOATE, London, England.
Hon. GEORGE H. WHITE, M. C., North Carolina.

EXECUTIVE COMMITTEE.

Rev. JEREMIAH EAMES RANKIN, D. D., LL. D., President.
Gen. GEORGE W. BALLOCH, LL. D.
JOHN F. COOK.
Rev. WM. V. TUNNELL, S. T. B.
FRANCIS H. SMITH.

SECRETARY AND TREASURER.

GEORGE H. SAFFORD.

HEADS OF DIFFERENT DEPARTMENTS, 1900-1901.

Rev. JEREMIAH EAMES RANKIN, D. D., LL. D., President.
ROBERT REYBURN, A. M., M. D., Dean of Medical Department.
B. F. LEIGHTON, LL. D., Dean of Law Department.
Rev. F. W. FAIRFIELD, D. D., Dean of College Department.
GEORGE J. CUMMINGS, A. M., Dean of Preparatory Department.
GEORGE WILLIAM COOK, A. M., Dean of English Department.
LEWIS B. MOORE, Ph. D., Dean of Pedagogical Department.
WILLIAM J. STEPHENS, Musical Director.
ROBERT L. PENDLETON, JOHN F. AKERS, O. F. N. MADDEN, Mrs. B. M.
HOWARD, Instructors in Industrial Work.
Miss S. C. EBERSOLE, Principal Miner Hall.



REPORT

OF THE

PRESIDENT OF HOWARD UNIVERSITY.

HOWARD UNIVERSITY,
Washington, D. C., July 1, 1901.

SIR: In compliance with the requirements of the sundry civil bill made in connection with the appropriation for Howard University, I have the honor to submit the following report, showing "the number of pupils received and discharged during the school year and the number remaining"; also "branches of knowledge and industry taught and the progress made therein." The students (886) are from 40 different States and Territories and from 10 foreign countries. The growth of the year has been larger than ever before.

For convenience, I render a detailed report by departments.

ENGLISH DEPARTMENT.

In the English department there were enrolled.....	159
Number leaving school of their own accord.....	36
	123

The department which gives special emphasis to reading, spelling, grammar, and arithmetic is divided as follows: Fourth-year class, third-year class, second-year class, first-year class; the fourth-year class being highest in grade of study. The department maintains also a special class in typewriting, shorthand, and English grammar. All students in the first and second year classes are required to spend four hours a week in the industrial department. The instruction followed by the English department is designed to fit pupils for intelligent citizenship and practical business.

The following branches are taught in the various classes: Arithmetic, algebra, reading, spelling, English grammar, English composition, geography, physical geography, general history, United States history, science of government, civil government, physics, chemistry, carpentry, printing, tinning, drawing, sewing, stenography, typewriting, music, bookkeeping, higher arithmetic, physiology, elocution, and commercial law.

With few exceptions the progress made during the year has been satisfactory, though the imperfect preparation of a few made heavy work for some of the teachers.

PREPARATORY DEPARTMENT.

The preparatory department, which fits students for college, is divided into four classes, each representing one year's study.

In the senior year 12 students entered school. In this class the subjects taught are as follows: Virgil, Anabasis, Iliad, German, English, classics, astronomy, essays, declamations, and discussions during the year.

The middle class entered with 26 students. In this class the following are the subjects taught: Cicero, Greek lessons, physics, chemistry, algebra, English classics, essays, and history.

In the junior class 37 students were received. The subjects taught are as follows: Cæsar, Latin composition, Greek and Roman history, English classics, geometry, and manual training, such as carpentry, printing, and tinning.

The first year or lowest class entered with 69. Eight left of their own accord, the number left at the end of the year being 61. The subjects taught are as follows: Introductory Latin, algebra, English composition, elementary rhetoric, music, drawing, physiology, manual training four times a week.

There were 9 students pursuing special studies. Two left during the year.

The results secured in the year's work have been quite satisfactory in all the branches.

The whole number received	151
Number left during the year	10
	141

COLLEGE DEPARTMENT.

The college department received at the commencement of the year.....	48
Number left during the year	7
	39

These are classified, as in all other American colleges, into seniors, juniors, sophomores, and freshmen.

There are in the senior class 12, all of whom graduated with the degree of A. B.

The junior class has 6 members; the sophomore class has 5 members; the freshman class has 13 members, and 10 have pursued special studies.

The subjects taught are as follows: Algebra, geometry, trigonometry, analytics, physics, chemistry, geology, zoology, botany, mineralogy, biology, physiology, meteorology, rhetoric, English history, Greek, Latin, French, German, psychology, moral philosophy, natural theology, evidences of Christianity, Constitution of the United States, international law, political economy, pedagogy, and Bible study. The Bible is studied as literature.

DEPARTMENT OF PEDAGOGY.

The department of pedagogy is the professional school of Howard University for the study of educational science and the training of teachers. It takes academic rank with the departments of theology, law, and medicine. The purpose of the department is to afford oppor-

tunity, both theoretical and practical, for the training of teachers of both sexes for elementary and secondary schools, and by instruction and direction to help those who desire to pursue studies and investigations in the science of education.

The work aims: (1) To acquaint the student with those principles and practices of education which have changed the methods of secular schools and established them upon a psychological basis; (2) to lay broad culture in the student himself; and (3) to create a spirit of enthusiastic devotion to the highest of all work—the instruction of a little child.

The number enrolled.....	173
Number left during the year.....	3

170

The classification is as follows: Graduate students, 30; seniors, 11; juniors, 13; specials, 31; students in the practice school, 65; kindergartners, 23.

The practice school, under Miss Annie R. Barker, A. M., B. Ped., is the laboratory of the department. Members of the senior class give instruction here one year as a part of their required training.

The graduate students are teachers in the city schools, who recognize the superior advantages offered in this department for more thorough training in the science and art of education.

The following subjects are taught: Teachers' course in English, physiology, zoology, physiography, physics, nature study, history, gymnastics, Bible, elocution, psychology (elementary and descriptive), history of pedagogy, history of philosophy, ethics, philosophy of education, methods of teaching, and kindergarten methods.

The junior class has enjoyed a course in general culture, including reviews of popular works and discussions of current topics.

An exceptional opportunity in the way of lectures has been offered to all. The names of President J. E. Rankin, D. D., LL. D.; Prof. J. W. Chickering, of Gallaudet College; Dr. A. D. Mayo, of Boston, and Dr. L. R. Klemm, of the United States Bureau of Education, are a sufficient guaranty of the excellence of the courses.

The progress in all the classes has been encouraging.

MEDICAL DEPARTMENT.

In the medical department, which includes the dental and pharmaceutical courses, there were at the commencement of the session 211, divided as follows:

Candidates for the degree of M. D.....	138
Candidates for the degree of D. D. S.....	34
Candidates for the degree of Phar. D.....	33
Students pursuing special courses.....	5

During the year 25 left because they could not pay their expenses. About one-half of those who remained were unable to pay in full.

All of the classes completed their year's work, and the professors are much pleased with the graded course of instruction.

There were graduated from the regular course in May last.....	19
Number graduated from the dental course.....	10
Number graduated from the pharmaceutical course.....	0

Total number graduated..... 35

The branches taught are as follows: Anatomy, physiology, materia medica, therapeutics, chemistry, histology, bacteriology, pathology, obstetrics, gynecology, practice of medicine, surgery (eye and ear), medical jurisprudence, pediatrics, hygiene, sanitation, principles and practice of operative dentistry, dental pathology, prosthetic dentistry, crown and bridge work, pharmacy, and botany.

LAW DEPARTMENT.

The number received was 84; number left the department of their own volition, 6. These were divided into juniors, middle, and seniors. Eighteen were graduated with the degree LL. B.

The branches taught are the same as those of other law schools in the city of Washington, as follows: Blackstone's Commentaries, Tiedman on Real Property (with Indemaur's Common Law Cases), Bishop on Contracts (enlarged edition), Tiedman on Bills and Notes, Schouler on Domestic Relations, Clark on Criminal Law, Hale on Torts, Clark on Criminal Procedure, Shipman on Common Law Pleading, Bispham on Equity, Shepard's Selected Cases in Equity, Darlington on Personal Property, Greenleaf on Evidence (3 volumes), Bateman on Commercial Law, Cooley on Constitutional Law, Woolsey on International Law, Schouler on Executors and Administrators, Clark on Corporations, and Wambaugh's Study of Cases.

Our enrollment noted an increase of seven students over that of the previous year, and that, too, in the face of the fact that the preliminary examination given as a prerequisite to admission was pitched on a decidedly higher key, the aim being to make such examination an efficient test of the applicant's mental fitness to enter upon the study of law.

While under the operation of this requirement for the past few years our roster has fallen off slightly in numbers, there has been quite an appraisalment in quality of students, and the loss on the one side has been more than counterbalanced by the gain on the other.

During the year the students as a whole manifested the greatest interest in their studies, and the averages therein attained were proof positive that the nature, scope, and importance of the undertaking were thoroughly appreciated by them. They buckled themselves down to work from the very beginning of the session, and persevered in their labors to the year's end.

In the matter of attendance, decorum, and application all the students were first-rate.

As to these very important matters, there was among them a healthy public opinion, which stood as the court of last resort in all matters of doubtful propriety.

In a word, the year was a marked success along all lines, and the most excellent and enthusiastic closing exercises, held on the evening of May 27 at the First Congregational Church, this city, on which occasion the graduating class (numbering 18) was most ably and eloquently addressed by ex-Governor Atkinson, of West Virginia (himself a graduate of our school, class of year 1890), were surely a fit climax to the year's inspiring work.

THEOLOGICAL DEPARTMENT.

The theological department, which is not supported in any degree by Congress, but welcomes the patronage of all, makes the following report:

Whole number of pupils during the year.....	62
Number left during the year.....	7
	55

The following are the branches taught: Greek and Hebrew Scriptures, English Bible, biblical history and antiquities, systematic theology, church history, homiletics, Christian missions, pastoral theology, moral philosophy, natural theology, evidences of Christianity, elocution, rhetoric, and vocal music.

There are three courses—a classical and an English day course and a night English course. Only those in the classical course study the Scriptures in the original. Thirteen students—that is about one-fifth of our number—have taken the classical course this year.

The attendance has been larger than ever before, and the spirit of Christian love and enthusiasm very encouraging. The tokens of good work done by its graduates in the various denominations and of the confidence of those denominations in it are multiplying. The standard of scholarship is rising, and the conditions of graduation are from time to time increased.

Eighty-nine per cent support themselves as waiters, barbers, watchmen, and like employment. Nearly all—probably all—are engaged in various kinds of Christian service.

Eight denominations are represented among the teachers and students, and all work in harmony. We have but two teachers who give all their time to the work. The increase in our numbers creates an urgent need for an additional instructor. The department welcomes a return of help on the part of the American Missionary Association. As this department receives no Government aid, it is in great need of an adequate endowment, so that the beneficent work which it has been doing for thirty years may be put on a permanent and enlarged basis.

Evidence of the superior character of the work of this department is seen in the frequent call of its graduates to important pulpits and other responsible positions.

INDUSTRIAL WORK.

Efficient instruction is given in carpentry, tinning, printing, bookbinding, sewing, cooking, as well as theoretical and practical agriculture.

RECAPITULATION.¹

Number enrolled:	
English department.....	159
Preparatory department.....	151
College department.....	46
Department of pedagogy.....	173
Medical department.....	211
Law department.....	884
Theological department.....	62
	886

¹This statement does not include the names of students in the Freedmen's Hospital training school for nurses, though nearly all of the instructors in this department are members of our medical faculties.

Number left during the year:

English department	36
Preparatory department	10
College department	7
Department of pedagogy	3
Medical department	25
Law department	6
Theological department	7

— 94

Total

792

The trustees respectfully ask of Congress the sum of \$5,125 to introduce an entire system of heating into the two large structures, Miner Hall and Clark Hall. The present system is very imperfect and unsafe, being nothing but single stoves—called egg stoves—for each room. These stoves are easily thrown down, when their red-hot contents ignite the floor. Such accidents are repeatedly occurring. The sum mentioned above is the result of the bidding of responsible parties in and out of Washington, the sum mentioned being by some \$700 or \$800 the lowest.

During the last year, under the supervision of the professor of biology, \$100 has been expended from the treasury of the university to set up hotbeds and set out fruit trees for the practical instruction of the students in agriculture. The trustees respectfully request that the sum of \$1,000 annually be a permanent appropriation for work in this direction.

The growth of the university has been so rapid and the increase in the number of our teachers so needful that the trustees find a deficiency in salary account every year. They respectfully ask that the sum of \$3,000 be added to this account for a permanent relief of the treasury of the university in this respect, this increase to be divided between the following departments: Pedagogical, preparatory, and English.

All of which is respectfully submitted.

J. E. RANKIN, *President.*

HON. ETHAN A. HITCHCOCK,
Secretary of the Interior.

EXPENDITURE OF APPROPRIATION.

The appropriation bill requires the proper officer of the university to report how the appropriation is expended, and in compliance with this requirement I have the honor to add the following statement:

Six professors and heads of pedagogical and college departments receive, respectively, \$1,500 each	\$9,000.00
One professor and head of the preparatory department	1,350.00
One professor and head of English department	1,350.00
One assistant professor	900.00
One lady teacher in the college department	1,000.00
One assistant teacher in the pedagogical department	460.00
One instructor	720.00
One assistant teacher in the preparatory department	540.00
One lady teacher	720.00
Three assistant teachers and one librarian, respectively, \$450 each	1,800.00
One teacher in the English department	630.00
One matron	910.00
Secretary, treasurer, and business manager	1,800.00
One assistant and teacher in English department	720.00

Total, instructors in academic branches

21,800.00

One dean and professor of the law.....	\$1, 825. 00
Two professors in the law department.....	3, 000. 00
One professor and librarian.....	1, 375. 00
Two lecturers, \$500 each.....	1, 000. 00
	7, 200. 00

The sum of \$3,000 appropriated for the manual training school (industrial department) was expended as follows:

For instructors in carpentry, printing, sewing, and tinning.....	\$2, 351. 56
For janitor and fireman.....	122. 50
For fuel.....	84. 00
Lumber, hardware, and other material for carpenter shop, tin shop, and printing office.....	441. 94
	3, 000. 00

The university expended during the year about \$2,800 for repairs of buildings, of which \$2,000 was appropriated by Congress; the appropriation of \$900 for the law and general library was expended under the direction of the several faculties, one half going to the law department library and the other half going to the general library. The books were purchased of the lowest bidder in each case. The bids were all submitted to the honorable Secretary of the Interior and the purchases made by his authority; and the sum of \$200 appropriated for chemical apparatus was used by the professors of chemistry, physics, and natural history after submission of proposals to the honorable Secretary of the Interior. Nothing was expended from funds granted by Congress, directly or indirectly, for the theological department.

Treasurer's statement of receipts and disbursements from July 1, 1900, to June 30, 1901.

ACCOUNT PERTAINING TO CURRENT EXPENSES OF ACADEMIC DEPARTMENTS, INCLUDING ADMINISTRATION AND INSTRUCTION.

RECEIPTS.	
Balance on hand July 1, 1900.....	\$885. 07
From United States for—	
Salaries.....	21, 800. 00
Industrial department.....	3, 000. 00
Chemical apparatus.....	200. 00
Library books.....	987. 35
Repairs of buildings.....	2, 000. 00
From rents.....	4, 488. 96
From income from investments.....	7, 477. 99
From students' rooms.....	1, 393. 50
From proceeds of shops.....	142. 39
From miscellaneous.....	401. 37
From board.....	550. 00
	43, 306. 63

EXPENSES.	
Salaries.....	27, 962. 00
Industrial department.....	3, 027. 21
Chemical apparatus.....	200. 00
Library books.....	987. 35
Buildings and grounds (Congressional appropriation).....	2, 000. 00
Repairs of buildings.....	772. 97
Care of grounds.....	361. 59
Fuel and gas.....	1, 250. 23
Janitors, firemen, and watchmen.....	2, 340. 04
Insurance.....	949. 22
Interest on \$15,000 to medical department.....	2, 272. 57
Miscellaneous expenses (including postage, stationery, telephone, tuning pianos, advertising, clerk hire, diplomas, water rent, catalogues, cots and mattresses, and miscellaneous labor (including annual cleaning of buildings), and other bills of the same character).....	750. 00
Balance, June 30, 1901.....	453. 45
	43, 306. 63

Theological department:

By interest on Stone fund from American Missionary Association trustees	\$1,800.00
By donations through agent.....	2,009.92
By special donations.....	64.44
To amount paid theological professors.....	\$3,044.44
To amount paid agent's commission.....	677.69
To amount transferred to chapel fund.....	152.23
	<u>3,874.36</u>

Medical department:

By balance on hand July 1, 1900	87.78
By cash, Dr. F. J. Shadd, treasurer.....	13,020.12
To professors and lecturers.....	6,930.00
To apparatus, printing, janitors, gas, etc	5,889.59
To balance, June 30, 1901.....	288.31
	<u>13,107.90</u>

General endowment fund (land):

By balance on hand July 1, 1900	603.24
By loans paid	15,000.00
To settlement, equity court, lot 28, square 1055.....	71.00
To amount invested in real-estate notes.....	13,400.00
To balance, June 30, 1901.....	2,132.24
	<u>15,603.24</u>

Law department:

By United States, for salaries.....	7,200.00
To salaries of professors and lecturers.....	7,200.00

The Fred. Douglass scholarship fund:

By balance on hand July 1, 1900	52.50
By interest.....	241.32
By collection, Dr. Sinclair, agent for permanent scholarship fund.....	50.00
By loans paid.....	1,400.00
To amount transferred to aid fund.....	240.00
To amount invested in real-estate notes.....	1,400.00
To amount paid agent's commission	16.66
To balance, June 30, 1901.....	87.16
	<u>1,743.82</u>

J. K. McLean scholarship fund:

By interest.....	60.00
To amount transferred to aid fund.....	60.00

The W. W. Patton memorial fund:

By balance on hand July 1, 1900	12.10
To balance, June 30, 1901.....	12.10

The Mary B. Patton scholarship fund:

By balance on hand July 1, 1900	27.00
By interest.....	61.00
To amount transferred to aid fund.....	63.00
To balance, June 30, 1901.....	25.00
	<u>88.00</u>

Wm. W. Patton scholarship fund:

By interest	55.00
To amount transferred to aid fund.....	55.00

The F. B. Schoals scholarship fund:

By balance on hand July 1, 1900	159.00
By interest	387.77
By loans paid	1,300.00
To amount invested in real estate notes.....	1,400.00
To amount transferred to aid fund.....	326.00
To balance June 30, 1901	100.77
	<u>1,826.77</u>

The Horace Ford scholarship fund:	
By interest	\$46. 00
By loans paid	1,000. 00
To amount transferred to aid fund.....	\$46. 00
To amount invested in real estate notes.....	1,000. 00
	<u>1,046. 00</u>
J. W. Alvord scholarship fund:	
By interest	60. 00
To amount transferred to aid fund.....	60. 00
	<u>60. 00</u>
The Orange Valley scholarship fund:	
By interest	60. 00
To amount transferred to aid fund.....	60. 00
	<u>60. 00</u>
The J. P. Thompson scholarship fund:	
By balance on hand July 1, 1900	5. 60
By interest	13. 85
To amount transferred to aid fund.....	13. 90
To balance June 30, 1901	5. 55
	<u>19. 45</u>
The William E. Dodge scholarship fund:	
By balance on hand July 1, 1900	12. 50
By loans paid.....	1,000. 00
By interest	285. 00
To amount transferred to aid fund.....	175. 00
To amount invested in real estate notes.....	500. 00
To balance June 30, 1901	602. 50
	<u>1,277. 50</u>
The Edward Smith text-book fund:	
By balance on hand July 1, 1900	30. 62
By interest	27. 50
To amount paid for students' books	25. 17
To balance June 30, 1901	32. 96
	<u>58. 12</u>
The Hartford reading-room fund:	
By balance on hand July 1, 1900	39. 69
By interest	22. 00
To amount expended.....	12. 79
To balance June 30, 1901	48. 90
	<u>61. 69</u>
Students' aid fund:	
By balance on hand July 1, 1900.....	140. 87
By special donations.....	235. 50
By amount transferred from specific funds.....	1,652. 40
To cash paid students	1,714. 20
To amount paid agent for commission	15. 00
To balance June 30, 1901.....	299. 57
	<u>2,028. 77</u>
The Andrew Rankin memorial chapel fund:	
By balance on hand July 1, 1900	92. 36
By donations through agent.....	794. 95
By special donations.....	32. 60
By transfer from theological department fund.....	152. 23
To agent's commission.....	272. 80
To interest on loan of November, 1894.....	150. 00
To fuel and gas.....	95. 43
To amount expended for repairs and painting.....	99. 85
To supplies practice school.....	85. 58
To balance June 30, 1901.....	368. 48
	<u>1,072. 14</u>

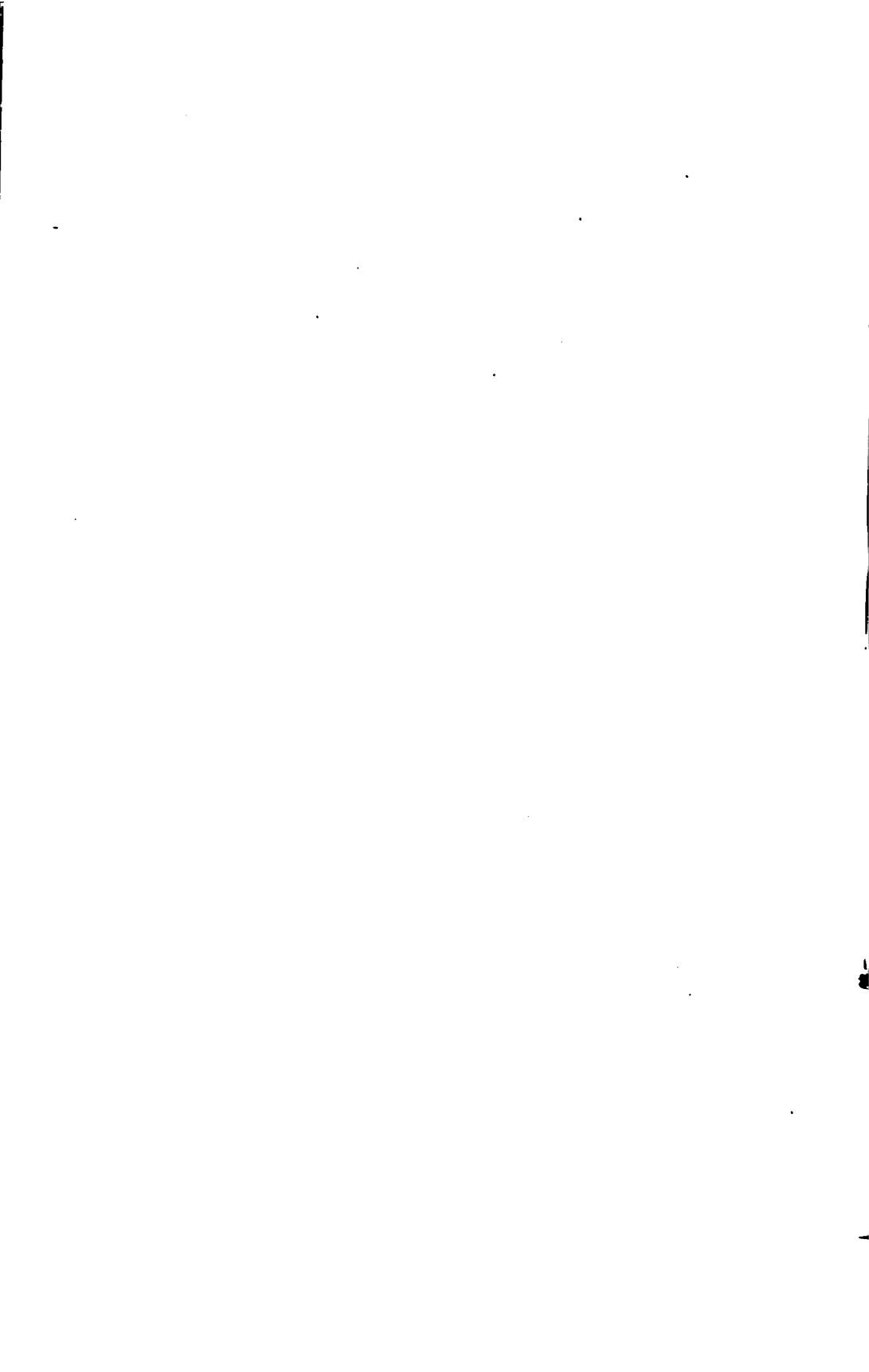
Deposit account:		
By balance on hand July 1, 1900		\$699.57
By cash received for safe-keeping		398.50
To cash paid depositors	\$972.73	
To balance June 30, 1901	125.34	
		<u>1,098.07</u>
The alumni professorship fund:		
By balance on hand July 1, 1900		25.00
To balance June 30, 1901		<u>25.00</u>
Theological alumni fund:		
By interest		2.40
To amount expended		<u>2.40</u>
Boarding account:		
By balance on hand July 1, 1900		376.57
By cash, for board		3,572.97
To cash paid for bills	3,194.35	
To amount transferred to current expense account	550.00	
To balance June 30, 1901	205.19	
		<u>3,949.54</u>
The Thomas Cropper Riley scholarship fund:		
By balance on hand July 1, 1900		25.00
By interest		50.00
To amount transferred to aid fund	50.00	
To balance June 30, 1901	25.00	
		<u>75.00</u>
The Thad. Stevens fund:		
By interest		128.50
To amount paid Dr. C. B. Purvis		<u>128.50</u>
The Caroline Patton Hatch fund:		
By interest		12.00
To amount transferred to aid fund	6.00	
To balance, June 30, 1901	6.00	
		<u>12.00</u>
The Martha Spaulding scholarship fund:		
By balance on hand July 1, 1900		20.00
By interest		415.00
To amount transferred to aid fund	435.00	
		<u>435.00</u>
Martha S. Pomeroy scholarship fund:		
By interest		125.00
To amount transferred to aid fund	62.50	
To balance, June 30, 1901	62.50	
		<u>125.00</u>
Agricultural and industrial training:		
By donation through agent		245.00
To agent's commission	81.67	
To amount expended for lumber, tools, hardware, labor, books, etc	93.88	
To balance, June 30, 1901	69.45	
		<u>245.00</u>

List of permanent funds.

Name of fund.	June 30, 1901.		Total.
	Cash invested.	Cash on hand.	
General endowment fund (land)	\$128,970.00	\$2,132.24	\$126,102.24
Martha Spaulding scholarship fund	7,000.00		7,000.00
Douglass scholarship fund	4,353.00	77.50	4,430.50
McLean scholarship fund	1,000.00		1,000.00
W. W. Patton memorial fund		12.10	12.10
W. W. Patton scholarship fund	1,000.00		1,000.00
M. B. Patton scholarship fund	1,200.00		1,200.00
Horace Ford scholarship fund	1,000.00		1,000.00
J. W. Alvord scholarship fund	1,000.00		1,000.00
Orange Valley scholarship fund	1,000.00		1,000.00
F. B. Schoals scholarship fund	6,000.00		6,000.00
J. P. Thompson scholarship fund	260.00		260.00
Wm. E. Dodge scholarship fund	4,500.00	500.00	5,000.00
Thos. Cropper Riley scholarship fund	1,000.00		1,000.00
Edward Smith text-book fund	500.00		500.00
Hartford reading-room fund	400.00		400.00
Thad. Stevens fund	2,200.00		2,200.00
Caroline Patton Hatch fund	200.00		200.00
Alumni professorship fund		25.00	25.00
Theological alumni fund	40.00		40.00
Pomeroy scholarship fund	2,500.00		2,500.00
Total	159,123.00	2,746.84	161,869.84

RECAPITULATION.

Account.	Balance on hand July 1, 1900.	Received.	Disbursed.	Balance on hand June 30, 1901.
Account pertaining to current expenses of academic branches, officers, and professors	\$885.07	\$42,421.56	\$42,853.18	\$453.45
Medical department	87.78	18,020.12	12,819.59	288.31
Law department		7,200.00	7,200.00	
Theological department		3,874.36	3,874.36	
General endowment fund	603.24	15,000.00	13,471.00	2,132.24
F. Douglass scholarship fund, principal	44.16	1,450.00	1,416.66	77.50
F. Douglass scholarship fund, interest	8.34	241.32	240.00	9.66
J. K. McLean scholarship fund, interest		60.00	60.00	
Wm. W. Patton memorial fund, principal	12.10			12.10
Wm. W. Patton scholarship fund, interest		55.00	55.00	
Mary B. Patton scholarship fund, interest	27.00	61.00	63.00	25.00
F. B. Schoals scholarship fund, principal	100.00	1,300.00	1,400.00	
F. B. Schoals scholarship fund, interest	59.00	367.77	326.00	100.77
Horace Ford scholarship fund, principal		1,000.00	1,000.00	
Horace Ford scholarship fund, interest		46.00	46.00	
J. W. Alvord scholarship fund, interest		60.00	60.00	
Orange Valley scholarship fund, interest		60.00	60.00	
Thad. Stevens fund, interest		128.50	128.50	
J. P. Thompson scholarship fund, principal				
J. P. Thompson scholarship fund, interest	5.60	13.85	13.90	5.55
Wm. E. Dodge scholarship fund, principal		1,000.00	500.00	500.00
Wm. E. Dodge scholarship fund, interest	12.50	265.00	175.00	102.50
Smith text-book fund, interest	30.62	27.50	25.17	32.95
Reading-room fund, interest	39.69	22.00	12.79	48.90
Thos. Cropper Riley scholarship fund, interest	25.00	50.00	50.00	25.00
Andrew E. Rankin chapel fund	92.36	979.78	703.66	368.48
Caroline Patton Hatch fund, principal				
Caroline Patton Hatch fund, interest		12.00	6.00	6.00
Martha Spaulding scholarship fund, interest	20.00	415.00	435.00	
Pomeroy scholarship fund, interest		125.00	62.50	62.50
Students' aid	140.87	1,887.90	1,729.20	299.57
Deposits	699.57	398.50	972.73	125.34
Alumni professorship fund, principal	25.00			25.00
Theological alumni fund		2.40	2.40	
Agricultural and industrial training		245.00	175.55	69.45
Board	376.57	3,572.97	3,744.35	206.19
Total	3,294.47	96,362.53	93,681.54	4,976.46



COLUMBIA INSTITUTION FOR THE DEAF AND DUMB.

OFFICERS OF THE INSTITUTION.

Patron.—William McKinley, President of the United States.

President.—Edward Miner Gallaudet, Ph. D., LL. D.

Secretary.—Hon. John B. Wight.

Treasurer.—Lewis J. Davis, esq.

Directors.—Hon. Francis M. Cockrell, Senator from Missouri; Hon. Charles A. Russell, member of Congress from Connecticut; Hon. Samuel W. T. Lanham, member of Congress from Texas, representing the Congress of the United States; Hon. Henry L. Dawes, of Massachusetts; Hon. Joseph R. Hawley, of Connecticut; Rev. Byron Sunderland, D. D.; Hon. John W. Foster; Lewis J. Davis, esq.; R. Ross Perry, esq.

FACULTY OF GALLAUDET COLLEGE.

President and professor of moral and political science.—Edward Miner Gallaudet, Ph. D., LL. D.

Vice-president and professor of languages.—Edward A. Fay, M. A., Ph. D.

Emeritus professor of mental science and English philology.—Samuel Porter, M. A.

Emeritus professor of natural science and lecturer on pedagogy.—Rev. John W. Chickering, M. A.

Professor of history and English.—J. Burton Hotchkiss, M. A.

Professor of mathematics and Latin.—Amos G. Draper, M. A.

Professor of natural science.—Charles R. Ely, M. A., Ph. D.

Assistant professor of mathematics.—Percival Hall, M. A.

Assistant professor of natural science.—Herbert E. Day, M. A.

Instructor in history and Latin.—Allen B. Fay, M. A.

Instructor in English.—Elizabeth Peet.

Instructor in history and librarian.—Albert C. Gaw, M. A.

Instructors in gymnastics.—Albert F. Adams, M. A.; Josie Helen Dobson.

Instructor in drawing.—Arthur D. Bryant, B. Ph.

DEPARTMENT OF ARTICULATION.

Professor in charge.—Percival Hall, M. A.

ASSISTANTS.

Instructor.—Kate H. Fish.

Normal fellows.—Gussie Howe Greener, B. Ph., Ohio State University; Bertha Gildersleeve Paterson, A. B., Ohio State University; Harry F. Best, A. B., Centre College, Kentucky; Frank O. Huffman, A. B., Wake Forest College, North Carolina; Claude R. McIver, Ph. B., University of North Carolina.

FACULTY OF THE KENDALL SCHOOL.

President.—Edward Miner Gallaudet, Ph. D., LL. D.

Instructors.—James Denison, M. A., principal; Melville Ballard, M. S.; Theodore Kiesel, B. Ph.; Sarah H. Porter, M. A.

Instructors in articulation.—Emma Pope, Elizabeth Peet.

Instructor in drawing.—Arthur D. Bryant, B. Ph.

DOMESTIC DEPARTMENT.

Supervisor and disbursing agent.—Wallace G. Fowler.

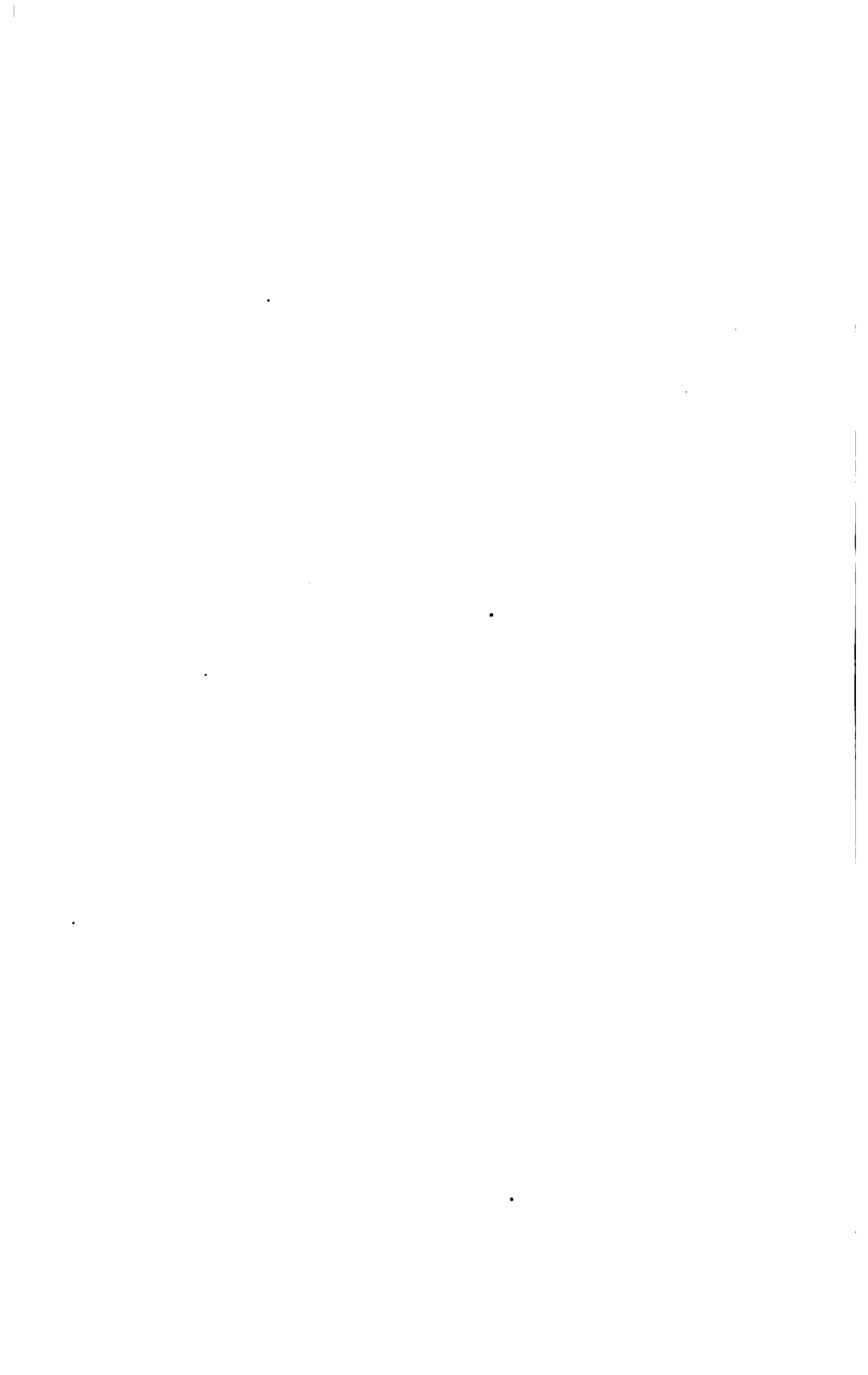
Attending physician.—D. K. Shute, M. D.

Matron.—Miss Myrtle M. Ellis.

Associate matron.—Mrs. Amanda W. Temple.

Master of shop.—Isaac Allison.

Farmer and head gardener.—Edward Mangum.



FORTY-FOURTH ANNUAL REPORT
OF THE
COLUMBIA INSTITUTION FOR THE DEAF AND DUMB

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB,
Kendall Green, Washington, D. C., October 2, 1901.

The pupils remaining in the institution July 1, 1900, numbered 126; admitted during the year, 38; since admitted, 38; total, 202. Under instruction since July 1, 1900, 133 males, 69 females. Of these, 138 have been in the college department, representing 31 States, the District of Columbia, Canada, and Ireland, and 64 in the primary department. Thirty-eight of these pupils were admitted as beneficiaries from the District of Columbia under your order, and 96 have been admitted to the collegiate department under the provisions of the acts of Congress approved August 30, 1890, and June 6, 1900.

A list of the names of the pupils connected with the institution since July 1, 1900, will be found appended to this report.

HEALTH.

The only case of serious illness which has occurred among our students or pupils during the year was one of pneumonia, which, however, yielded to treatment, and the patient speedily recovered. With slight exceptions, general good health has prevailed during the year.

COURSES OF INSTRUCTION.

In our report of two years ago a detailed account of courses of study in all the departments of the institution was given. These courses remain unchanged, and it is thought unnecessary to repeat a description of them in this report.

LECTURES.

As an adjunct to the several courses of study, it has been the custom of professors, instructors, normal fellows, and members of the senior class of the college to give lectures to the students and pupils during the winter. These have been as follows the past year:

IN THE COLLEGE.

Treatment of Enemy Property on the Sea, by President Gallaudet.
Slavery in America from 1619 to 1820, by Professor Fay.
Robinhood Cycle in English Literature, by Professor Hotchkiss.
The Interdependence of Matter, by Professor Draper.
Sanitary Chemistry, by Professor Ely.
The Question of Time, by Professor Hall.
Siberia and the Russian Exile System, by Professor Day.
Boyhood of Frederick the Great, by Mr. Fay.

IN THE KENDALL SCHOOL.

Cooper's Deerslayer, by Mr. Denison.
 Balance of Power in Europe, by Mr. Ballard.
 Bela, the Blind King of Hungary, by Mr. Kiesel.
 A Frontier Fight, by Mr. Bryant.
 A Story of India, by Mr. Daniels.
 Discovery of Gold in California, by Mr. Mumford.
 Napoleon's Invasion of Russia, by Mr. Read.
 California, Past and Present, by Mr. Runde.
 Stories of Wolf Countries, by Mr. Swanson.
 The Gunmaker of Moscow, by Mr. Moran.
 The Story of the Six Servants, by Miss Gaillard.
 The Waverley Ghost, by Miss Stout.
 Indian Sun Dances, by Miss Lindstrom.

TECHNICAL INSTRUCTION.

At the beginning of the last scholastic year the greatly increased demand for technical instruction led the college faculty to make a further step toward the establishment of regular technical courses.

It was agreed that students of good standing in the junior year might be allowed to pursue scientific courses, with the consent of their instructors, equivalent in requirements to the regular academic course, but leading to the degree of bachelor of science.

In accordance with this new arrangement three young men took up the study of civil engineering, pursuing successfully last year the studies of analytic geometry, mechanics, descriptive geometry, railroad surveying, French, physics, political economy, international law, and aesthetics.

For their senior year, now beginning, they will be required to take German, psychology, differential calculus, strength of materials, geology, graphical statics, astronomy, and further work in surveying. On graduation these young men will be prepared to enter with advanced standing special technical schools for further study in their chosen work.

Three young men, without leaving the regular course, took up agricultural chemistry as an extra study, investigating the nature of soils, etc., with a view of applying their knowledge later to scientific farming.

Three other students pursued a second year's course in electricity, taking up both in theory and practice the laws of magnetism, lightning protection, electric lighting, generators, electric motors, electric welding, electroplating, and other useful branches.

There is no doubt that it is a great advantage for deaf students who wish technical training to obtain the foundation for it under instructors who are familiar with their habits of thought and with their earlier education.

It is felt that this work may be most valuable to the students later in life in choosing their professions and earning a livelihood, and that it would be almost impossible for them to obtain such a good foundation in so short a time elsewhere.

CHANGES IN THE CORPS OF INSTRUCTORS.

But one change has occurred in our permanent corps of instructors. Mr. Albert C. Gaw, M. A., lately connected with the Minnesota School for the Deaf, and earlier with the Missouri School, has been

appointed an instructor of history in the college. He will also act as librarian, and will assist the president in his correspondence.

Between the times of his service in Missouri and Minnesota, Mr. Gaw held a normal fellowship in our college for a year, and is by experience and training well fitted for the position he has taken among us.

DEATHS AMONG THE OFFICERS OF THE INSTITUTION.

During the last year the institution has lost by death an unusual number of its officers. During the autumn of 1900 the Hon. William L. Wilson, of Virginia, president of Washington and Lee University, who had been for several years a member of the board of directors, was called away from earth. The following minute was adopted at a meeting of the board held soon after the death of Mr. Wilson:

HON. WILLIAM L. WILSON.

The directory of the institution in the death of Hon. William L. Wilson, of Virginia, realizes the loss of a friend and counselor, whose kindness and wisdom were encouraging and active at all times during the years he was connected with the management of the Columbia Institution for the Deaf and Dumb. The officials and all connected with the institution heartily express appreciation and esteem for the late director and his worth as a man and co-laborer in their associations.

Mr. Wilson, in years of active public service, brought to every trust a fidelity which was attentive to details, a courtesy which was delightful to enjoy, and attainments which were valuable for counsel. In his interest for the Columbia Institution these qualities of the gentleman and scholar were admirably exercised and the institution was made better by his presence and his support. He was progressive and liberal in all educational concerns and especially toward the institution which sought to benefit and instruct the unfortunate whose physical infirmities separated them from the students of the ordinary schools.

The gentle spirit and kindly heart and wise mind of our late associate will remain in loving memory with the directory, and the institution sincerely mourns the loss of its true friend.

REV. BYRON SUNDERLAND, D. D.

The management of the institution has sustained a severe loss in the death of Rev. Byron Sunderland, D. D., who had been a member of the board of directors since the foundation of the institution in 1857.

Dr. Sunderland was one of the incorporators of the institution and was named in the act of incorporation as a member of the provisional board of directors. He had, therefore, been identified with the management of the institution for more than forty years.

A warm personal friend of Hon. Amos Kendall, the first president of the board, Dr. Sunderland took a deep interest in the organization of the institution, in the development of the school, and later in the organization and development of the college.

His intelligent counsels were always of value in the meetings of the board, and his warm sympathy with the work of the officers of the institution was most highly appreciated.

At the closing exercises of our term, on the 19th of June last, Dr. Sunderland was the only member of the board present. Although having passed the limit of four score years, his eye was not dimmed nor was his natural force abated. His usual vivacity and cordiality marked his intercourse with officers and students on that day, and none dreamed that the hand of death was approaching.

He passed away suddenly, eleven days later, at the home of his daughter, in Catskill, N. Y.

The memory of his long connection with and deep interest in the work of this institution will be treasured by all who knew him, and his name will stand in the annals of the history of the institution as one of its honored founders.

PROF. SAMUEL PORTER.

Prof. Samuel Porter, who died on the 3d of September, in the family home where he was born, in Farmington, Conn., had been connected with this institution for thirty-five years.

Appointed professor of mental science and English philology in the college in 1866, he continued to perform the duties of that professorship actively until 1884, when, having reached the ripe age of 75 years, he was made emeritus professor, continuing to reside in the college and required to perform only such light duties as might be agreeable to him.

For seventeen years Professor Porter continued to reside in the college, and during this period rendered many valuable services to the institution, acting as librarian during the entire period, giving lectures from time to time, advising and assisting students in their work of original composition, and by his example and continued mental activity to the last days of his residence here inspiring our students to a high standard of intellectual culture.

Professor Porter reached the age of 92 years in possession of a remarkable degree of physical and mental vigor. Not until the last few months were there evidences of any considerable degree of failure in either respect.

Professor Porter's record as a teacher of the deaf stands without a parallel, covering, as it does, a period of over sixty-five years. His first work with the deaf was in the school at Hartford, whence, after a few years, he removed to New York and taught in the institution in that city. Returning to Hartford, he continued teaching there until a short time before he was called to Washington.

Through all his years as a teacher he endeared himself to his pupils by a gentle manner and a consideration for the difficulties of youth not always shown by their instructors.

He was a constant student, collecting a large and valuable library, and contributing many articles on linguistic subjects to various periodicals. An important article from his pen on vowel sounds is found in a recent edition of Webster's Dictionary.

Professor Porter was one of a family of successful teachers, his brother Noah being well known as a recent president of Yale University, and his sister Sarah, known to many as the founder of a remarkably successful seminary for young ladies which she carried on for a half century in her native town of Farmington, Conn.

Professor Porter will be remembered at Kendall Green during future years as one whose life and work were a gracious benediction to all those who came under his influence.

THE PRESIDENT OF THE UNITED STATES.

Sharing in the universal grief which attended the unexpected and untimely decease of the late President McKinley, the officers and students of this institution have a special reason for mourning his departure.

By the organic law of the institution, the President of the United States is made its patron. It is his privilege to preside at the public anniversaries of the institution, and is his duty to affix his signature to all diplomas in which degrees are conferred.

This official relation to the institution brings the President of the United States very near to all connected with it, and we mourn his death not only as our President well beloved, but as our patron and official head.

EXERCISES OF PRESENTATION DAY.

The annual public exercises of the college took place on Wednesday, the 1st day of May. The Rev. F. D. Power, D. D., pastor of the Vermont Avenue Christian Church, offered the opening prayer.

The essays of the academic class were as follows:

Oration.—The Relations between Canada and the United States, John A. Braithwaite, Canada; Physical Training in the College Curriculum, Albert F. Adams, B. A., 1886, Gallaudet College; Devotion to High Ideals, Alexander D. Swanson, Canada; The Life and Writings of Mrs. Browning, Frances A. Norton, California; The Power of Poetry, Anna B. Stout, Pennsylvania; The New South, Why? Robert S. Taylor, North Carolina.

Dissertations.—The Poems of Tennyson, Maud H. Brizendine, Alabama; The Artist's Mission, Annie M. Lindstrom, California; The Influences that Mould the Great, Theresa E. Gaillard, South Carolina; The Inequality of Men a Necessity, Winfield S. Runde, California; Wit and Humor, Daniel E. Moran, Pennsylvania.

Candidates for degrees as recommended by the faculty were then presented as follows:

For the degree of master of arts (normal fellows).—Margaret Ashby Lyle, B. S., Caldwell College, Kentucky; Ora G. Daniels, B. A., Tufts College, Massachusetts; E. F. Mumford, M. A., Wake Forest College, North Carolina; Elmer D. Read, B. A., Illinois College.

Albert F. Adams, B. A., 1886, Gallaudet College.

For the degree of bachelor of arts.—John Alexander Braithwaite, Maud Hester Brizendine, John Sebastian Fisher, Theresa Elizabeth Gaillard, Annie Matilda Lindstrom, Daniel Edison Moran, Samuel Nichols, Arthur Hilton Norris, Frances Amelia Norton, Winfield Scott Runde, Anna Belle Stout, Alexander David Swanson, Robert Southerland Taylor.

Normal student.—Sara Frances Small, Richmond High School, Maine.

The president of the college then said:

I am authorized by the board of directors to announce that the degree of bachelor of divinity has been conferred upon Mr. Francis Maginn, of Belfast, Ireland. Mr. Maginn's career, since he was a student of this college a few years ago, is of more than ordinary interest.

Belonging to a family of high mental ability and culture in Ireland, his father having been a clergyman of the established English Church in Ireland, and his uncle the well-known Dr. Maginn, of Frazer's Magazine, Mr. Maginn came to us a few years ago and remained three years as a student, with the definite purpose of preparing himself to be a missionary among the deaf-mutes of Ireland.

On leaving the college he returned to Ireland and established a mission for the deaf at Belfast. He is a recognized and duly licensed lay reader and missionary of the English Church in Ireland. He has carried forward his mission among the deaf in the north of Ireland to that degree of success which has drawn upon him the commendation of all who are interested in the welfare of deaf-mutes in Great Britain and Ireland. He founded a very prominent association of deaf-mutes in Great Britain and Ireland, which has held several congresses.

He established a magazine, published in Belfast, in the interest of deaf-mute education, which has lately become the recognized organ of the association of teachers of the deaf in the United Kingdom. He has pursued private study. He has preached regularly to the deaf for many years, and our faculty and our board felt that it was only a fair recognition of his successful work on these lines that he should receive the degree of bachelor of divinity.

The president of the college read a letter from President McKinley expressing his great regret that his expected absence from the city would make it impossible for him to preside over the exercises of presentation day in his capacity as patron of the institution.

The president then introduced Hon. B. F. MacFarland, president of the Board of Commissioners of the District of Columbia, who delivered the following address:

COMMISSIONER MACFARLAND'S ADDRESS.

Mr. President, I want first to express my great pleasure in being here. I am very sensible of the honor conferred upon me in asking me to speak to these graduates to-day. It is, as the president said, a source of pride that this institution, the noblest of its kind in the world, is in the District of Columbia, and I am very glad to be allowed to-day to offer the congratulations of the government of the District of Columbia upon this beautiful harvest of your year's work.

Three years ago to-day our national horizon lifted and removed to the uttermost parts of the earth. On that May day the United States stepped out of its restricted confines into all the life of the world, and was recognized by the other nations as a new power in its affairs. It has been the moral leader ever since in the most important international events, notably in China, where the Philippine base of operations which it secured three years ago has proven so valuable. It has no cause to blush for that leadership. It has been just, peaceable, and beneficent, and has constrained the cooperation of other nations by the strength of its principles quite as much as by the strength of its power. What it has done is typical of what it will do, with more and more authority and success, throughout the century now opening.

If it can not now be safely called the American century, it is certainly safe to predict that it will be dominated by American influence. The United States, far from being in danger of decadence, has not yet reached its prime. It has the pent-up energy of youth, so long shut in by its old boundaries. It has such wealth and power, moral and physical, as no other country has ever had, and it is able to spare a great and increasing surplus for the benefit of the rest of the world.

With all its shortcomings and transgressions, with all its needs and woes, the United States is to-day the finest product of all time, sound at heart and full of life. It is the center of the best hopes of mankind, and on its action depends the future history of the race.

Against its will, suddenly and without preview, it has been led out into a large place where, as always, great responsibility and great opportunity stand waiting hand in hand. Naturally the conservative and timid shrink back, but the nation has heard the trumpet which can never sound retreat, and as a nation it must go forward. It could not turn back if it would, and it would not if it could. It remembers the wonderful way it has been led in the past, the years of the right hand of the Most High, and sees through the fogs of doubt and the thickets of difficulty the clear opening of the path of duty.

At this impressive moment you, the first graduates of Gallaudet College in the twentieth century, step forth from this sheltered and scholarly place—so comfortable, so agreeable—into the activities of the outside world, which are now stern and again sweet, and always stimulating if not satisfying. As thoughtful men and women, realizing that having had exceptional preparation you must render exceptional service, you ask yourselves what you are to do in this great hour of our national life. You feel the fine desire of all the best American youth to strike a full and telling blow. You are ambitious to make your mark, and, I believe, to do your duty fully and faithfully. What can you do in the great, new world labors of the United States? You may not become a soldier or a sailor, a merchant adventurer, or a scientific explorer. You may not be asked to carry the flag of your country to new triumphs abroad. Your name may not be destined for the roll of fame. Nevertheless every one of you may as perfectly serve your country with high purpose and honorable achievement. The private station may be the post of honor. It will be, if that is where you are called to stand, in common with the vast majority of your fellow-citizens.

Then, as the battle line may depend upon its weakest member, so the State's success may turn upon your fidelity in the humblest place. The nation is simply the men and women who compose it. It will be what they are, and every one of them is responsible for one share in its well-being and well-doing. Therefore you, every one of you, must maintain as though you were the President of the United States, the

honor, the credit, of your country at home and abroad. To do this most effectively you must support the standard of its high ideals by conforming your own life to them. They are the ideals of Christianity. They have been said to be too high for unaided human nature to follow, and this is so. But you and I believe in God, the Father Almighty, and that He is able and willing to aid us to live up to the ideals He has given us.

We can not have too high ideals, too noble purposes, under the new demands which have come upon our country and in the midst of the new temptations coming with them. Materialism, now sweeping over the earth like a flood, will drown all ideals and purposes that are not high. And it behooves us as lovers of our country to make a stand for all that has ennobled its past and that has promised glory for its future. More is exacted now of every American because more is expected of America. We do not need more Americans, but we need that every American shall be more of a man or woman to meet the new conditions of our national life at home and abroad.

Yet our country, yes, our God, asks nothing unreasonable of us—

"What asks our Father of His children save
Justice and mercy and humility,
A reasonable service of good deeds,
Pure living, tenderness to human needs,
Reverence and trust, and prayer for light to see
The Master's footprints in our daily ways?
No knotted scourge nor sacrificial knife,
But the calm beauty of an ordered life,
Whose every breathing is unworded praise."

Let us not shrink back from this reasonable service, which will be the best that we can render to the Fatherland, as we render it to the Father. Let every one of us say from the heart:

"And as the path of duty is made plain,
May grace be given that I walk therein,
Not like the hireling, for his selfish gain,
With backward glances and reluctant tread,
Making a merit of his coward dread,
But cheerful in the light around me thrown,
Walking as one to pleasant service led,
Doing God's will as if it were my own,
Yet trusting not in mine, but in His strength alone."

At the conclusion of Mr. MacFarland's address the president of the college spoke as follows:

When this college first made its work known to the country and to the world there were those who smiled the smile of derision and said it was absurd to think of giving college education to deaf-mutes. There were even teachers of the deaf who said it was foolish to attempt to give the deaf and dumb a higher education. That was a good many years ago. The college was organized, and it began to do its work. Its graduates went out and did nobler and better work because of their education here, and I think it is not presumptuous for me to say that with the success of the college the cause of deaf-mute education everywhere, not only in our own country, but in other countries, has been uplifted and broadened because of the interest in the work of the college here.

Students have come from Europe to our normal department from England, from India, and from Japan, to acquire the art of educating the deaf and to get something of the stimulus that is given by association with the most intelligent and highly educated of the deaf-mutes of this country.

It is always a great pleasure to us when those from foreign lands express an interest in and show an appreciation of our work here. We have often received visits from representatives of foreign governments in Washington, who have come here to inquire into the work we are doing. To-day it is our especial pleasure and honor to have the presence with us of the honorable representative of the oldest government of the world—a gentleman who, by the directness of his diplomacy, the brilliancy of his intellect, and the charming courtesy of his manners, has won the respect and the warm esteem of the American people. I have great pleasure in presenting to you his excellency Mr. Wu Ting Fang, the minister of China to the United States, who has kindly consented to say a few words on this occasion.

THE CHINESE MINISTER'S ADDRESS.

MR. PRESIDENT, LADIES, AND GENTLEMEN: I must confess that I am a little nervous to speak before you. I have spoken before many audiences, but I think this is the first time that I speak to an audience composed of people that can not hear me. [Laughter.]

No doubt they understand what I say. I am sure you all do; but there is another thing which I feel nervous when I am speaking—when I am speaking I do not like to see another man standing beside me making signs. [Laughter.]

It distracts my thoughts, and if I do not speak in a consistent way I hope that you will excuse me. But I was saying that there are some here—you know that there are some people that can hear, but they can not understand. I hope that is not the case with the audience. I am sure it is not. But there are some people who can not hear, but they understand, and I am sure it is the case with all of you. Well, the loss of the senses—of one of the senses—is, indeed, an affliction. But it is sometimes—you may regard this as a reflection, but you may depend upon it, the loss is compensated by some gain. Take the case of a blind man. The loss of his sight—as I have seen people, although I have not experienced it—the loss of the sight is usually, and I think invariably, compensated by the increased sensibility of the other senses.

I have not seen the blind here walking about in the street as far as my experience goes in this country, but in my country I often saw blind people walking about in the streets, with no guide except a little cane, groping their way for miles. They go out regularly every day and come back to their homes, and without mistake. It is said that the blind man, though he can not see, is very acute, and he can find his way. He can see that a person—he can see when anything is approaching him by, I might say, the temperature of the air all about him. So you see that the blind man has some advantages in his increased sensibility.

Now, there are times when a person would not mind being a little deaf. I am told that in the battle of Santiago the officers and men who took action on board the ships put cotton in their ears to deaden the noise so as to be able to carry on their work.

Now, in this beautiful city all of the streets are paved with asphalt so the carriages and the locomobiles and the automobiles do not make much noise. But it is different in some large cities, manufacturing towns, and noisy cities just like New York. Why, you would be disturbed in your sleep. You would be disturbed in your work by these noises in the streets, and sometimes when one is not accustomed to it he wishes he were deaf. But students of this college have in this respect the advantage of us. So, therefore, although you have some defects, you have some advantages over us.

Well, there are some situations in life in which it is not an evil to be deaf or mute. Now, just to start what I am going to say, I might relate to you a story, which is a Chinese story.

About twelve hundred years ago a great general in China, who had done great, courageous services for the empire; in fact, he restored the throne to the emperor, and on account of his magnificent services he was rewarded by his sovereign. In addition to that, the emperor had a daughter, and he gave the daughter in marriage to his son. Well, the couple lived happily for a short while, but, as usual with young people, one day they fell out, and the young man used some strong words toward his wife, and he said to her: "Why, don't be so proud because your father is emperor. My father put your father on the throne. He could have taken the throne himself if he had wished it, but he was loyal to your father so he put him on the throne."

Well, the daughter, his wife, was very angry. She immediately ran back to her father's home, and told her father and mother. Now, of course, what the young man said, you know, was in anger and excitement. He did not exactly mean it. But this, if repeated to the emperor, is a serious offense. Well, this came to the ear of his parents; that is, the general and his wife. Well, they were afraid. So the only thing to do was to take their son to see the emperor, to apologize, and to place the case before the emperor and to leave it to him to do what he pleased.

Well, the emperor was a noble man. As soon as he heard the story he told the general and his mother—and his wife, I mean—that this is the young man's quarrel; we old people need not bother them. And he gave them good advice. He said to be a good father-in-law and mother-in-law you must be deaf and mute. [Laughter.]

Now, young friends, it will be a long time before you can become father-in-laws and mother-in-laws; but some day you will, and you will have the advantage over us. [Laughter.]

Well, gentlemen, young people here, I am glad to see that you have been here, and now to-day you have graduated. This is a great thing for you, and it surprises me to see, because it is a great, agreeable surprise to me to find that you people, although suffering under these afflictions, are able, with your education, to not only have good education, but to be able to compose those beautiful essays which I have heard to-day, and to be able and to deserve to have diplomas.

Now, you are better situated than my countrymen, who are similarly afflicted as you are, for I am sorry to say that up to this moment, as far as I understand, they

in the appendix of this report a complete list of the work done under this head, which will include the signs furnished to various committee rooms.

At a cost of \$12,658.85, two new electric elevators built by the Elektron Company, of Springfield, Mass., have been installed to take the place of the old elevators in the House wing. These elevators were operated during the session of Congress with but one or two slight mishaps, which were of no consequence, and did not affect the safety of the same. These mishaps were due simply to inexperience in handling the new machinery, the completion of which was not effected until a few hours before the meeting of Congress.

The chief engineer of the House wing reports perfectly satisfactory operation of all appliances under his direction in the House wing of the Capitol.

The working force of this department has been increased by legislation, facilitating the work of repairs and improvements. The machinery of this department was in constant operation during the past year without accident. In connection with his work the chief engineer and his force removed from the space over the ceiling of the House all old and unnecessary gas pipes.

The water supply in the House wing was increased by connecting the pressure tank of one of the old hydraulic elevators with the storage tank. The elevator tank referred to was one put out of operation by the installation of the new electric elevators.

Under the appropriation for steam heating and machinery in Senate the chief engineer reports a thorough overhauling of all machinery and ventilating appliances in his department. He states that the air ducts in walls over the ceiling and under the Senate Chamber have been cleaned and whitewashed. The west electric elevator was fitted with new cables, thoroughly overhauled, and repaired. Overhauling and repairs were made to the hydraulic elevator landing near Senate restaurant. The control valves were renewed and new lining placed in the main valve.

The hydraulic lift running from the coal vaults to the sidewalk above has been repaired. Electric motors were put in good working condition and kept running without accident during the session of Congress. These motors drive all of the large and smaller fans connected with the ventilating system of the Senate.

New return pipes have been run from the steam coils in the west terrace. The steam coil used for heating the office of the Secretary of the Senate, financial room, and Public Buildings and Grounds was increased to twice its former capacity.

The boilers were thoroughly cleaned and fire boxes relined with fire brick.

Some tile paving was done on the floors connected with the office of the chief engineer.

The legislative bell system of the Senate has been increased to cover the new committee rooms in the old Library space, and the old lines have been overhauled and put in first-class condition. All gas pipe and other pipes not in use over the ceiling, Senate Chamber, were removed to the betterment of the conditions there. Formerly the vapor escaping from the hot well of the boiler room was let out near the balustrade on the Senate roof. As it produced some annoyance, a change was made whereby the vapor now discharges in the main smokestack.

Medical attendance and nursing	\$583. 57
Telephone and electric clocks	54. 76
Furniture	248. 80
Lumber	56. 40
Dry goods	638. 51
Gas	1, 264. 00
Paints and oils	108. 96
Fuel	3, 197. 45
Feed	790. 21
Medicines and chemicals	252. 95
Books, stationery, and school apparatus	500. 91
Hardware	294. 01
Plants, seeds, and tools	466. 63
Blacksmithing and horseshoeing	223. 64
Carriage and carriage repairs	246. 40
Ice	501. 85
Live stock	592. 65
Incidental expenses	183. 52
Crockery and cutlery	397. 34
Stamped envelopes	63. 60
Auditing accounts	300. 00
Printing	239. 95
Harness and harness repairs	61. 25
Botanical specimens for the museum	250. 00
Gymnasium apparatus	159. 13
Lectures	50. 00
Lewis J. Davis, treasurer	1, 000. 00
Balance	50. 60
	73, 955. 28

SPECIAL REPAIRS.

Received from the Treasury of the United States.....	\$3, 000. 00
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EXPENDITURES.

Plumbing and steam fitting	\$1, 141. 40
Mason work	107. 70
Painting and whitewashing	687. 24
Carpentering and lumber	500. 22
Paperhanging	130. 75
Labor	432. 69
	3, 000. 00

ESTIMATES FOR NEXT YEAR.

The following estimates for the fiscal year ending June 30, 1903, have already been submitted:

For the support of the institution, including salaries and incidental expenses, for books and illustrative apparatus, and for general repairs and improvements, \$69,000.

For repairs to the buildings of the institution, including plumbing and steam-heating apparatus and for repair to pavements, \$3,000.

For a deficiency in the appropriations for the current year, \$2,000.

This deficiency has arisen in consequence of the increase in the number of our beneficiaries provided for in the act of Congress of June 6, 1900.

These estimates are all based on the provisions and requirements of law, and it is believed that they will be regarded as reasonable and proper.

CONVENTION OF INSTRUCTORS AT BUFFALO.

The regular triennial meeting of the Convention of American Instructors of the Deaf was held at Buffalo from the 2d to the 8th of July, in the buildings of the Le Couteulx St. Mary's Institution for the Deaf and Dumb. Great pains were taken by the good sisters who manage that institution for the comfort and pleasure of the members of the convention, and the meeting, largely attended, was in all respects successful.

This institution was represented by its president, Professor Fay, Professor Hall, Professor Day, Mr. A. B. Fay, and Miss Peet.

The proceedings of the convention will, in accordance with law, be in due time reported in full to Congress.

All of which is respectfully submitted, by order of the board of directors.

EDWARD M. GALLAUDET,
President.

Hon. E. A. HITCHCOCK,
Secretary of the Interior.

CATALOGUE OF STUDENTS AND PUPILS.

IN THE COLLEGE.

- | | |
|-----------------------|-------------------------|
| Alabama: | Iowa—Continued. |
| Maud H. Brizendine. | Lillie Ward. |
| Arkansas: | Mabel E. Fritz. |
| Earnest J. Hendricks. | William M. Lawrence. |
| Eula E. Morriss. | Kansas: |
| Charles McRaven. | Arthur L. Roberts. |
| John E. Purdum. | Edith Brummitt. |
| Daisy M. Henderson. | Emory F. Mikesell. |
| John P. Lovelace. | Kentucky: |
| California: | Thomas Y. Northern. |
| Winfield S. Runde. | William C. Fugate. |
| Annie M. Lindstrom. | Otto C. Meunier. |
| Frances A. Norton. | William G. Wheeler. |
| Adam S. Hewetson. | Cline C. Nisbet. |
| Colorado: | Louisiana: |
| Marion E. Ritchie. | Grey G. Barham. |
| Bert L. Forse. | Maryland: |
| Connecticut: | George Schafer. |
| Helen E. Fish. | Ezra C. Wyand. |
| Georgia: | George Brown. |
| Anna West Allen. | Arthur Hoffmaster. |
| Illinois: | W. Perrin Lee. |
| Frieda W. Bauman. | Massachusetts: |
| Edith M. Fitzgerald. | Ida P. Brooks. |
| Frank A. Johnson. | Michigan: |
| Paul H. Erd. | George W. Andree. |
| Edward H. Garrett. | Roy C. Carpenter. |
| Charlotte E. Hall. | Charles F. W. Lawrence. |
| Indiana: | William S. Hunter. |
| Arthur H. Norris. | Clyde Stevens. |
| Ernest S. Mather. | Minnesota: |
| Julius A. Bente. | Gilbert O. Erickson. |
| Iowa: | Victor R. Spence. |
| William M. Strong. | Margaret Hauberg. |
| Earl L. Appleby. | Henry Bruns. |
| Harry G. Long. | Paul R. Wye. |
| Mamie A. Lubert. | Blanche M. Hansen. |
| | Helen M. Garrity. |

Mississippi:

Percy B. Jones.

Missouri:

Arthur O. Steidemann.

Horace B. Waters.

Peter T. Hughes.

E. Marion Nowell.

Ivy J. Myers.

W. Howe Phelps.

Clyde McKern.

Maud Hagler.

J. Reese Applegate.

J. Henry Burgherr.

Nebraska:

Effie J. Goslin.

Emma G. Morse.

Katharine M. Schwartz.

New York:

Murray Campbell.

Anna L. McPhail.

Winfield E. Marshall.

John H. Keiser.

Emil Mayer.

North Carolina:

Robert S. Taylor.

Robert C. Miller.

Ohio:

Bessie B. McGregor.

Slava A. Snyder.

Mary E. Zell.

Wilhelm F. Schneider.

George F. Flick.

Ida Wiedenmeier.

Harley D. Drake.

David Friedmann.

John C. Winemiller.

Ernest W. Craig.

Ernestine Fisch.

Pennsylvania:

John S. Fisher.

Daniel E. Moran.

Samuel Nichols.

Anna Belle Stout.

Milton T. Haines.

Cyril A. Painter.

Sarah Goldstein.

Nellie V. Hayden.

Adelaide L. Postel.

Guy P. Allen.

Ernest R. Cowley.

Pennsylvania—Continued.

B. Scott Foreman.

George E. Anderson.

Elmore E. Bernsdorff.

John L. Friend.

Elmer S. Havens.

Louis P. Schulte.

George C. Korn.

Mary E. Hill.

Dan M. Reichard.

Charles L. Clark.

South Carolina:

Theresa E. Gaillard.

William J. Geilfuss.

Douglas M. Bradham.

South Dakota:

Marion E. Finch.

Tennessee:

Lester G. Rosson.

Will W. Worley.

Texas:

Letitia R. Webster.

Charles H. Cooley.

Robert M. Kleberg.

Annette M. Collins.

Utah:

John H. Clark.

Elizabeth DeLong.

Lillian Swift.

Virginia:

J. Watson Allen.

Claude A. Miller.

Bickerton L. Winston.

Washington:

T. A. W. Lindstrom.

Edna L. Marshall.

Wisconsin:

Duncan A. Cameron.

Fred J. Neesam.

Enga C. Anderson.

District of Columbia:

William Lowell.

William Pfunder.

Canada:

John A. Braithwaite.

Alexander D. Swanson.

Margaret Hutchinson.

Ireland:

Andrew Leitch.

IN THE KENDALL SCHOOL.

Females.

Bertha Conaway, Delaware.

Myrtle E. Connick, District of Columbia.

Sarah L. Dailey, District of Columbia.

Eva Dorchester, Texas.

Maggie Dougherty, Delaware.

Rosa Early, District of Columbia.

Maud E. Edington, District of Columbia.

Gertrude Fagan, Delaware.

Mattie Hurd, Delaware.

Florence Johnston, Delaware.

Tina F. Jones, Delaware.

Carrie King, District of Columbia.

Ida May Littleford, District of Columbia.

Matilda Maddox, District of Columbia.

Mary O'Rourke, Delaware.

Arrenah Pettit, Louisiana.

Evalyne G. Plumley, Delaware.

Laura Sykes, District of Columbia.

Mary Spurry, Delaware.

Sophia Stansbury, District of Columbia.

Sadie E. Talbert, District of Columbia.

Sadie Torney, District of Columbia.

Maggie Vaughn, District of Columbia.

Rebecca Weil, Georgia.

Alice Woolford, District of Columbia.

Males.

Edward F. Beirne, New York.
 Howard Breeding, Delaware.
 Douglas M. Bradham, South Carolina.
 Robert E. Binkley, Indiana.
 Charles Butler, District of Columbia.
 Frank Carroll, District of Columbia.
 John F. Caslow, District of Columbia.
 John B. Chandler, Tennessee.
 John G. Escherick, Pennsylvania.
 Jacob Eskin, District of Columbia.
 Ernest Foskey, Delaware.
 Charles Gorman, District of Columbia.
 Arthur H. Jaffray, Canada.
 Raymond Johnson, District of Columbia.
 John F. Kramer, Georgia.
 Aaron Lee, District of Columbia.
 Lewis W. Long, Delaware.
 Samuel H. Lynn, Tennessee.
 John W. C. McCauley, District of Columbia.
 John Wesley McCandless, Ireland.

John T. McDonough, Pennsylvania.
 Lester Nailor, District of Columbia.
 Arthur Nash, District of Columbia.
 Carl Rhodes, District of Columbia.
 George Richardson, District of Columbia.
 Joseph P. Riley, District of Columbia.
 William J. Riley, District of Columbia.
 John Shields, District of Columbia.
 George Smith, District of Columbia.
 Charles Shepherd, District of Columbia.
 Harry Stansbury, District of Columbia.
 Raymond Stillman, District of Columbia.
 Arthur L. Swarts, Delaware.
 James Thomas, District of Columbia.
 Richard T. Thomas, District of Columbia.
 L. Byrd Trawick, Georgia.
 Henry Turner, District of Columbia.
 Joseph Wertzbozski, Delaware.
 Raymond Webb, Delaware.
 Frank Winter, District of Columbia.
 William W. Worley, Tennessee.

REGULATIONS.

I. The academic year is divided into three terms, the first beginning on the Thursday before the last Thursday in September and closing on the 24th of December; the second beginning the 2d of January and closing the last of March; the third beginning the 1st of April and closing the Wednesday before the last Wednesday in June.

II. The vacations are from the 24th of December to the 2d of January, and from the Wednesday before the last Wednesday in June to the Thursday before the last Thursday in September.

III. There are holidays at Thanksgiving, Washington's Birthday, Easter, and Decoration Day.

IV. The pupils may visit their homes during the regular vacations and at the above-named holidays, but at no other time, unless for some special, urgent reason, and then only by permission of the president.

V. The bills for the maintenance and tuition of pupils supported by their friends must be paid semiannually, in advance.

VI. The charge for pay pupils is \$250 each per annum. This sum covers all expenses in the primary department except clothing, and all in the college except clothing and books.

VII. All deaf mutes of teachable age, of good mental capacity, and properly belonging to the District of Columbia are received without charge. To students from the States and Territories who have not the means of defraying all the expenses of the college course, the board of directors renders such assistance as circumstances seem to require, as far as the means at its disposal will allow.

VIII. It is expected that the friends of the pupils will provide them with clothing, and it is important that upon entering or returning to the institution they should be supplied with a sufficient amount for an entire year. All clothing should be plainly marked with the owner's name.

IX. All letters concerning pupils or applications for admission should be addressed to the president.

X. The institution is open to visitors during term time on Thursdays only between the hours of 10 a. m. and 3 p. m. Visitors are admitted to chapel services on Sunday afternoons at a quarter past 3 o'clock.

XI. Congress has made provision for the education, at public expense, of the indigent blind of teachable age belonging to the District of Columbia.

Persons desiring to avail themselves of this provision are required by law to make application to the president of this institution.



REPORT
OF THE
ARCHITECT OF THE UNITED STATES CAPITOL.

ARCHITECT'S OFFICE, UNITED STATES CAPITOL,
Washington, D. C., July 1, 1901.

SIR: I beg to present herewith the annual report of this office relating to the care and repair of the United States Capitol Building for the fiscal year ended June 30, 1901.

Included is a statement of expenditure made in connection with the work.

NEW COMMITTEE ROOMS—OLD LIBRARY SPACE, UNITED STATES CAPITOL.

At the close of the last session of Congress the following joint resolution was passed, and was approved June 6, 1900:

[PUBLIC RESOLUTION—No. 33.]

JOINT RESOLUTION Relating to the use of the rooms lately occupied by the Congressional Library in the Capitol.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the rooms and space recently occupied by the Library of Congress in the Capitol Building shall be divided into three stories, the third story of which shall be fitted up and used for a reference library for the Senate and House of Representatives, and that portion of other stories north of a line drawn east and west through the center of the Rotunda shall be used for such purpose as may be designated by the Senate of the United States, and that portion of the first and second stories south of said line shall be used for such purpose as may be designated by the House of Representatives. And such sum as is necessary to make the construction herein provided for is hereby appropriated out of any money in the Treasury not otherwise appropriated, the sum to be expended under the direction of the Architect of the Capitol.

Approved, June 6, 1900.

All of the work covered by the above resolution, with the exception of that part relating to the space set apart for use as a reference library, was completed, ready for occupation in case of emergency, one day before the meeting of Congress. It was a work of some magnitude, considering the time allotted for its completion, and could never have been accomplished but for the unfailing interest of foremen and employees, who devoted every energy to its accomplishment.

The character of the resolution was extraordinary, inasmuch as the amount appropriated was not specified, but was set forth as the "sum necessary." The additional specification that the money should be

expended under the direction of the Architect of the Capitol left it to the discretion of that officer to provide everything which in his judgment was a fitting accessory to make that section of the Capitol Building as complete as possible. What the generosity of Congress has brought forth must be left to other judgment, based on the work as it stands to-day. What has been carried out has been done with the paramount idea to preserve the sentiments and ideas of the old and historic central building. For that reason solid masonry is the rule. Arches, cornice, and moldings are copied from those in other parts of the building. It only remains to decorate the rooms, and committees of the House and Senate will be housed therein, it is hoped, with pleasure and comfort.

For reference, a floor plan of both floors may be found in the appendix to this report. Thereon it will be seen that access to the new work is had at the central entrance, which opens through a vestibule into the Rotunda; at the south, and to the House wing, by means of the south corridor and a closed bridge passageway opening directly into the main corridor. Near this point a circular stairway goes to the second floor of the new rooms. On the Senate side the north corridor opens into a light well which has a doorway opening near the principal floor landing of the Dome stairway, and immediately adjoining is a doorway opening directly into the elliptical passageway and main corridor leading to the north. The Dome stairway leads to the second-floor rooms. Further convenience of access to these rooms is had by means of two electric elevators, established in the north and south courts, the service of these elevators extending to the subbasement floor, as a convenience to the numerous committee rooms in the two stories below the new rooms. Thus, the facilities for reaching the new rooms are as complete as possible for each story, and the important exits are at points nearest the respective Chambers of Congress.

One of the most important items of improvement, and one which suggested itself during the progress of the work, is the new marble vestibule located at the principal central entrance. Its extent is from the west Rotunda entrance to the doorway of the main corridor fronting the new rooms, a distance of 40 feet. Its width is $21\frac{1}{2}$ feet. In this space the old stairway comes up from the floor below, with a landing at the west Rotunda door. On either side of this stairway opening is arranged a colonnade of five Ionic fluted columns, with capitals and bases. The wall pilasters correspond in position. Including columns, full pilasters, and quarter pilasters, the number is as follows: Ten full columns; 14 full pilasters; 4 quarter pilasters.

The window openings of the vestibule were so arranged as to form symmetrical panel openings between the wall pilasters. The same may be said of the doorway openings. Elsewhere the entire wall surface, ceiling, and architraves are paneled in pure white marble. The darker shade of Italian marble, of which the columns and pilasters are made, contrasted with the purest white Vermont marble, of which the wall work, architraves, and carved ceiling panels are made, gives a very pleasing effect.

In view of the fact that the contracts for this branch of the work were not let until September 15, 1900, too much praise can not be paid to Hilgartner & Sons, of Baltimore, and the Vermont Marble Company for their excellent work and unflagging interest to complete the work

in the short time allotted. The carving of the column and pilaster capitals and the architrave and ceiling work is of the highest class.

Reference to the floor plan will show a series of rooms with windows opening into the courts which lie on either side of the central vestibule. These courts, of course, start at the ground floor and reach the skirt of the Dome. Originally they were walled up with ordinary brick. In this condition the lighting of the new rooms adjoining these courts would be unsatisfactory. It was determined to case these court walls in enameled white bricks, which was finally done, and furnished a surface cleanly, easily washed down, and conducive to excellent sanitary conditions. The rooms referred to are now lighted well and the outlook greatly improved.

I will now proceed to the general details of the construction in order, as follows:

REMOVAL OF THE BOOK STACKS AND IRONWORK OF THE OLD CONGRESSIONAL LIBRARY.

For this purpose proposals were invited, the material to be deposited near the Capitol Building. The work was done by C. A. Schneider's Sons, the successful bidders, at a cost of \$8,075. Consideration showed that none of the material removed could be of service to the Government, and accordingly, with the consent of the Secretary of the Interior, the material was advertised and sold on August 4, 1900. The excellent quality brought good prices, and the receipt from the sale nearly reached the cost of removal from the premises, a sum of \$7,392.32 being realized. In the appendix will be found illustrations showing the interior of the old Library before and after the removal of ironwork, which started on June 11 and was completed July 25, 1900.

PREPARATION OF OLD WALLS.

This work included the rearrangement of all the window openings facing the courts to correspond to the new plan. To do this work the walls were shored up and iron beams inserted for the window heads. The removal of the ironwork from the entire space disclosed a very interesting picture. On the surface of the walls, a greater part of which were composed of blue gneiss stone which formed the original building walls, was found evidences of the fire which in 1853 destroyed the Library of Congress. In other parts of the space, where the walls had been faced with brick and lime mortar, the material was in poor condition, probably from the effects of this fire. Where the north and south wings joined the central section walls 6 feet in thickness were found. These had been perforated to provide circular iron stairways for the use of the Library. These cross walls were in very bad condition, in fact practically unsafe, and it became necessary to remove the greater portion of them, as much for security as for the fact that they were at one point intersected by the corridor openings in the new plan. The roof at these two points was accordingly shored up and these walls were cut away and partly reconstructed in the new work. The new walls became available for the use of the flues. The age of this part of the Capitol building and the consequent settlements of the walls had thrown them much out of a true position—as much in one case as 8 inches in the height of the two stories. In this case all of the old brickwork was removed and new brick facing put in.

The preparation of the walls for the reception of the marble vestibule amounted practically to an entire reconstruction, in order to prepare for the three special windows on each side which entered into the plan of the vestibule.

The ceilings of four of the old rooms adjoining the court, which were a part of the old library, were found to be too high for the level of the second story and they were consequently removed and new brick arch ceilings put in instead.

All of the old plaster work left in place was removed and the brick walls exposed and refaced. All of the old floor covered by the library space was taken up, the old sand being taken out down to the haunches of the arches, leveled with concrete, and the floor tile, which was of marble and much of which was saved, was utilized to repave the floors below.

FLOOR PLANS.

On the 10th of August the entire space was ready for the reception of the brickwork. The lines were laid out and arrangements were made for the masons to work in two shifts of eight hours each. From this time until the completion—about October 15, 1900—the brickwork went forward sixteen hours per day.

PLASTERING.

About October 20 the plastering of the brickwork commenced. A special grade was used in order that the surface might dry quickly to receive the white coating. As the work progressed all of the ornamental plaster pieces were modeled and cast, ready to go in place at the first opportunity. This branch of the work was not completed until about December 1st. It was carried forward with two shifts of men working sixteen hours each day. The area covered by the plaster, work approximates 9,000 square yards.

FLOOR TILING AND MARBLE BASE.

As fast as permitted by the completion of the plasterwork the floor tiling in the rooms and corridors was laid. The patterns were varied as much as possible. No special designs could be employed on account of the shortness of time which prohibited special manufacture. The total area of tile laid was 16,000 square feet.

Following this 8,350 lineal feet of polished Italian-marble base was put in position in the rooms and corridors.

SANITARY APPLIANCES.

The toilet rooms for this section were placed as follows:

For the first and second stories of the House side, in the housing on the bridge leading to the main corridor near the Rotunda.

On the Senate side, a circular room already in place at the east end of the north corridor of the new work was utilized. For the second story a special bridge was constructed at the landing leading to the Dome stairway. As this landing crosses a small open court, ventilation is assured and the housing for the toilet room is prepared for top ventilation into the open air. The arrangements for ventilating the House toilets are exceptionally good, as the discharged air enters an open court adjoining Statuary Hall, but not connected with it, after which the air finds its way outward above the roof.

Each room in the new work is provided with a marble lavatory with nicked fittings, furnishing hot and cold water. The general supply runs along the corridors of each story, branches leading therefrom to each room. The waste water is carried vertically downward to the sewers below the subbasement floor.

The control of the temperature of the hot-water supply is effected at the heating boiler by means of an automatic regulator.

THE HEATING AND VENTILATING SYSTEM.

The work done under this head comprised not only the rooms of the new work, but two stories of rooms below. For obvious reasons it was necessary to take these in with the new work to make that section of the building and the apparatus complete. Besides, the heating of the lower rooms was obsolete, and as for fresh-air supply, the greater portion was obtained from the windows.

The appliances consist of a large Sturtevant fan driven by an electric motor of eight horsepower, and a large heating coil with by-pass to control the temperature of the air. This discharges into two main ducts—one leading around and under the floor of the subbasement corridor, the other rising vertically to the two floors of the new work.

The lower two stories receive fresh air through vertical ducts leading from the lower main duct to the various rooms through suitable registers.

The air-supply arrangements for the new work are different.

The ceilings of the corridors in this part are 18 inches less in height than those of the rooms. Between this ceiling and the corridor floor above a duct is formed 18 inches deep and the width of the corridor. This duct runs entirely around the space, free of any obstruction; the floor which forms the ceiling of the duct being constructed of iron beams filled with flat cement arches. The same method provides a duct above the ceiling of the second story corridors. Small ducts, about 9 by 14 inches in size, lead from these main ducts downward to an opening formed in each room over the doorway. This opening is supplied with a suitable grilled panel of metal which diffuses the entering air.

The two main corridor ducts connect with the main vertical duct (which leads directly to the fan) at the east end of the south corridor of each story.

In addition to the fresh-air supply, which is generally carried at a temperature of 72 degrees during the cold weather, the rooms in the entire western portion are supplied with steam radiators connected to vertical risers leading from a main steam line under the roof to the subbasement. One riser therefore supplies a tier of four rooms. The movement of the steam, starting as it does from overhead, is in harmony with the movement of the products of condensation in the radiator. The method insures in nearly every case freedom from disagreeable pounding.

The main steam supply is divided between the House and Senate boiler service. The radiators are of the single valve type. Except in the subbasement floor rooms the steam risers are concealed in suitable trenches behind the plaster.

I might add that the system has taken into account the possible use of the space allotted to the so-called reference library.

ELECTRIC LIGHTING.

The arrangements for electric lighting are very complete. The main feeders follow the main air ducts, leaving them at suitable points provided with junction boxes for the various rooms in the four stories. After leaving the main ducts all branches are carried in steel tubing to the several locations for chandeliers and brackets. The entire system is arranged so as to be easily accessible for repairs, and with due regard to possible increase of service in the various rooms. The total number of lights installed is 760. The total number of brackets fixtures 107, and the total number of corridor and room fixtures 75. In this connection, I will state for heating and lighting purposes a new 250-horsepower water tube steel boiler, costing \$5,511.50, and two large engines and dynamos, costing \$24,330, have been installed.

INTERIOR FITTINGS.

Under this head are included windows, door frames and doors, and marble mantels. The windows and frames in the new work are entirely new, the old ones being found unfit for further service. All are glazed with best American plate glass and are of the pivoted type, easy to operate, and especially useful in warm weather for obtaining the greatest possible supply of outside air.

The mantels in each room are of special design. All are of Italian marble. Each fireplace is arranged for service and not for ornament. The general construction as a whole is in keeping with the simple dignity of this building.

All doors and frames are of mahogany of the best possible grade and workmanship. They are finished nearly in the natural color of the wood, as it is expected that the effects of time will darken and mellow the tone and bring out the beauty of this particular wood.

There now remains the decoration and furnishing of the room, both of which are at this writing under way to be completed by the meeting of Congress.

When the entire work is completed a detailed financial statement will be prepared for the next annual report.

The general work was carried out by day labor, the character of which deserves and receives the gratitude of the responsible head. A most unusual interest was taken in the work by every employe of every degree of skill. The shortness of time in which to complete the work caused more or less tension, but on the whole it was a tension born of earnestness to do what was hoped of them.

ANNUAL REPAIRS.

The general repairs to the Capitol for the last fiscal year amount to about 800 in number, of which about 470 are repairs of minor character. About 160 door frames and windows have been painted, the windows being glazed wherever necessary. All of the fireplaces and flues in the building overhauled, and plumbing work and roof kept in good condition and the skylights free of leaks. A considerable amount of shelving was provided for the various folding and document rooms throughout the building, and several new doors and frames made and put in place.

One of the most important branches of the work has been the painting done throughout the building. I have deemed it advisable to place

in the appendix of this report a complete list of the work done under this head, which will include the signs furnished to various committee rooms.

At a cost of \$12,658.85, two new electric elevators built by the Elektron Company, of Springfield, Mass., have been installed to take the place of the old elevators in the House wing. These elevators were operated during the session of Congress with but one or two slight mishaps, which were of no consequence, and did not affect the safety of the same. These mishaps were due simply to inexperience in handling the new machinery, the completion of which was not effected until a few hours before the meeting of Congress.

The chief engineer of the House wing reports perfectly satisfactory operation of all appliances under his direction in the House wing of the Capitol.

The working force of this department has been increased by legislation, facilitating the work of repairs and improvements. The machinery of this department was in constant operation during the past year without accident. In connection with his work the chief engineer and his force removed from the space over the ceiling of the House all old and unnecessary gas pipes.

The water supply in the House wing was increased by connecting the pressure tank of one of the old hydraulic elevators with the storage tank. The elevator tank referred to was one put out of operation by the installation of the new electric elevators.

Under the appropriation for steam heating and machinery in Senate the chief engineer reports a thorough overhauling of all machinery and ventilating appliances in his department. He states that the air ducts in walls over the ceiling and under the Senate Chamber have been cleaned and whitewashed. The west electric elevator was fitted with new cables, thoroughly overhauled, and repaired. Overhauling and repairs were made to the hydraulic elevator landing near Senate restaurant. The control valves were renewed and new lining placed in the main valve.

The hydraulic lift running from the coal vaults to the sidewalk above has been repaired. Electric motors were put in good working condition and kept running without accident during the session of Congress. These motors drive all of the large and smaller fans connected with the ventilating system of the Senate.

New return pipes have been run from the steam coils in the west terrace. The steam coil used for heating the office of the Secretary of the Senate, financial room, and Public Buildings and Grounds was increased to twice its former capacity.

The boilers were thoroughly cleaned and fire boxes relined with fire brick.

Some tile paving was done on the floors connected with the office of the chief engineer.

The legislative bell system of the Senate has been increased to cover the new committee rooms in the old Library space, and the old lines have been overhauled and put in first-class condition. All gas pipe and other pipes not in use over the ceiling, Senate Chamber, were removed to the betterment of the conditions there. Formerly the vapor escaping from the hot well of the boiler room was let out near the balustrade on the Senate roof. As it produced some annoyance, a change was made whereby the vapor now discharges in the main smokestack.

In previous reports I have called some attention to the subject of heating and ventilation in this building, pointing out the condition in the House wing which it was desired should be corrected. I am happy to say that at the last session of Congress an appropriation was made for the ventilating of the House of Representatives, including the House restaurant. At this writing the work is progressing satisfactorily and every effort will be made to correct the faults of the old system. It is proposed that the air chamber shall be lined with white glazed tile to insure absolute cleanliness under the floor and that the method of air distribution shall be individual. Besides installing the usual air-propelling machinery in the subbasement, suitable exhaust machinery will be provided over head and special attention will be paid to the management of the air in the House galleries. The operation of appliances will be changed from steam to electricity. This will benefit materially the conditions in the lower subbasement corridors and will add to the effective operation of the fans. I have already detailed the arrangements for ventilating the new committee rooms.

The commission appointed by the House to supervise the expenditure of the appropriation for ventilation has placed in the hands of this office the procuring of the new desks for the Hall of the House. It is probable that a radical departure will be made in the character of the desks for the Hall, and that much of the air distribution for the desks will be made through the appliances attached to the desk body. The commission has already decided that the individual desk shall give way to the segmental type—that is, desks running in a solid body from aisle to aisle. It is believed that this method will insure more comfort in the desk arrangements to individual members, and besides will provide a sufficient number to accommodate the increase of the membership of the House which will take effect two years hence.

Congress has provided an appropriation for reconstructing the roof of the central portion of the Capitol, and this work is now under way. As is well known, the roof of the entire central portion of the building is of wood, covered with copper, and at the time of the Supreme Court fire was in great danger and barely escaped destruction. The new roof will be fireproof in character, and all wood construction will be avoided. The plans, so far developed, are very satisfactory, as the results will carry the roof line several feet below the present arrangement. This method will be in harmony with the original plans of the late Thomas U. Walter and with any extensions to the Capitol which may hereafter be made. The work will be so carried out as to provide a suitable space over the new committee room in the old Library space, which space may be devoted to the installation of either extensions of the House and Senate libraries or a reference library, as mentioned in the joint resolution hitherto quoted.

Congress has provided an appropriation of \$1,500 for the expenses incident to the preparation of plans for the extension of the Capitol and for the construction of an outside building suitable for committee rooms, document rooms, and for the heating and lighting plant of the Capitol. At present about 300 members of the House have no offices other than those which they may make of their residences. In many cases it is known that members rent outside rooms because of lack of any accommodation in the Capitol. Many of these members have a large constituency, and their business is correspondingly large. It is but fair and just that they should be provided with some place to do

their work, and that the Government should provide it. It has been difficult to find rooms enough suitable for committees to accommodate the chairmen of the House committees, and about the only feasible plan is to erect such a structure immediately adjoining the Capitol grounds, where members who are not chairmen of committees may have offices. Equally important is the necessity for getting rid of the vast quantity of books stored in the subbasement of the Capitol. If an outside building is erected, ample provision can be made for the handling of these documents outside the Capitol Building, for storage rooms and administrative offices. Modern methods place outside of structures of the character of the Capitol the heating and power plant. It is very desirable both for the safety and comfort of the building that our large heating and lighting plant be removed to some other location. This can be arranged for in the proposed new structure and furnish light and heat to both the Capitol and new building. For convenience sake the two structures would be connected by a subway of ample size, through which the heating steam mains, or hot-water mains, and electric-light mains would be carried. Instead of delivering hundreds of tons of coal at the very door of the Capitol, to say nothing of the hundreds of loads of firewood delivered from time to time during the session, the material would be brought in under ground. The same might be said of other material, such as furniture, paper, books, and food supplies for the restaurants. The present arrangements are obnoxious and unfitting the Capitol. The plans suggested for the proposed work will be presented to the coming Congress.

LIGHTING CAPITOL AND GROUNDS.

The lighting of the Capitol Building and grounds has continued during the past fiscal year with the same good results as reported hitherto. Many extensions have been made to the plant, notably that for lighting new committee rooms in the old Library space. I have set forth in detail in the appendix the extensions and all new work, new chandeliers furnished throughout the building, and all other fixtures in connection therewith. The appendix will also show various sections and rooms of the building where some of the old wiring has been replaced by new. In this case the method has been to rewire in such manner as to be permanent, most of the wires being run in steel tubing with facilities for repairs if required.

The conduct of the electric-light force during the past year merits the approbation of this office. The force is none too large, considering the magnitude of the building and the work involved, due to the great extensions of the past two or three years. The plant operates night and day throughout the year, and the shifts of men are varied so as to produce an equal distribution of night service. The service hours during session of Congress are trying and uncertain. The men have performed their duties faithfully and with unusual lack of friction.

IMPROVING THE CAPITOL GROUNDS.

The condition of the Capitol grounds during the last fiscal year has been better than that of the prior year. By a systematic arrangement of the force of labor employed better attention has been paid to the care of the trees and lawns generally. The area was divided into four

sections and the force in four parts, each under the guide of a foreman, all being under the direction of the chief gardener. The usual invasion of the caterpillar occurred during the past summer, but their ravages were somewhat checked by the use of disinfecting sprays. Some considerable experimenting has been done in this line, but no thoroughly satisfactory material has been found that will completely eradicate the pest.

The lawns crossed by the intercepting sewer constructed across the grounds by the District have not thrived as well as could be wished for. The main lawn on the west has been plowed up for the purpose of killing out the weeds and other undesirable growth. A considerable amount of fresh soil has been purchased with a view of improving the conditions of this lawn, and will be spread in proper season.

The lawns surrounding the terrace have been plowed up and resowed, and at this writing present a very satisfactory appearance. Fertilization and trimming the shrubbery and trees continues whenever necessary. Some repairs will be made during the present season to the artificial pavements where the roots of adjoining trees, owing to their growth, have uplifted the stones.

WORKS OF ART.

The care and repair of the works of art in the Capitol Building has been attended to during the past year by Mr. W. H. Duckstein. At the request of this office he has prepared for record a statement of all works of art in the Capitol Building, together with the location. I have placed this list in the appendix as a reference list. Several times during the last year requests for such a list were made, and the list was not at hand. This list will also be submitted to the Joint Committee on the Library, which committee has charge of all works of art in the Capitol.

FLAGS FOR THE CAPITOL.

The appropriation of \$100 for flags for the Capitol has been sufficient to supply the flags required during the past year. The expenditures therefor will be found in detail in the financial statement attached.

MALTBY HOUSE.

Under the supervision of this office the elevator shaft at this building was removed and a new steel shaft put in place. This work included the readjustment of several of the floors and the repairs incident to the new installation. The old shaft was of brick and was in a very dangerous condition, the foundations being insecure and the settlements sufficient to seriously interfere with the position of the walls connected with it. The removal of this shaft was a matter of some difficulty, but was carried out, fortunately, without injury to anyone. The appropriation for this work was expended under the direction of the Sergeant-at-Arms of the Senate and the financial clerk of the Senate, and is not given in detail in this report.

HOUSE AND SENATE STABLES AND ENGINE HOUSE.

The principal work under this head has been done at the House stables. New stalls have been erected. A new roof was placed on the wagon sheds and shed reconstructed and considerable paving of sub-

stantial character done in the wagon yards. Extensive repairs have been made to the plumbing and water supply.

The engine house was supplied with a new roof and the interior painted. Repairs were made to the roof of the stable, which will receive a new roof entire during the present season. The cottage and fence fronting on C street has been painted.

COURT-HOUSE, WASHINGTON, D. C.

The repairs to this building during the past fiscal year were as follows:

The exterior of the old building has been painted. Other sections painted were first and third story corridors, new building, marshal's office (private room), court of appeals, equity court No. 2, grand jury rooms, offices of the district attorneys. A room connected with this latter office, and formerly used as a toilet, was vacated, repaired, and made suitable for a private room for the district attorney. In the main offices a screen partition was moved to the adjoining room where witnesses assemble. The grand jury room was repaired and a new bathing room fitted up. New sash were placed in the chambers connected with the court of appeals. Rooms formerly occupied by the restaurant were vacated, new floors put in, and the vacated rooms fitted up as file rooms. Rooms 33, 35, and 36 were fitted up and turned over for use as a restaurant.

A new stairway has been erected at the east end of the old building, running from the principal to the upper story.

In the orphans' court room a new railing has been placed in front of the judge's bench.

A great improvement has been made in the ventilation of criminal court rooms Nos. 1 and 2 by installing in the attic two 4-horsepower electric motors directly connected with exhaust fans.

Many improvements have been made to the plumbing and heating appliances, consisting of rearrangements of piping, new work added, and fitting new grate bars to the boiler furnaces.

The renovation of the building has been aided by a special appropriation of \$4,348.50 made by Congress.

NATIONAL BOTANIC GARDEN.

The superintendent of the Botanic Garden reports the following repairs:

Main conservatory received the necessary repairs and was given two coats of paint outside. Plant houses Nos. 3, 4, 5, 6, 7, 8, 10, and 11 were repaired and given one coat of paint inside and out. New staging put in house No. 5, east side.

Extra hothouse No. 2 was stripped, the iron sills, rafters, and purlins thoroughly scraped, given one coat of metallic paint, and recovered with new Gulf cypress, which was treated with a solution of iron and linseed oil. The woodwork was given one coat of white lead, reglazed, and the entire structure was given two coats of white-lead oil.

REPAIRS TO HEATERS.

Three heaters in house No. 1 and one heater in houses Nos. 3, 4, 5, and 6 repaired. Two chimneys repaired and new caps put on. New brick trap for drain pipe from conservatory. Maryland avenue gate repaired.

BUILDINGS AND GROUNDS ON MARYLAND AVENUE.

The fence on Second street repaired. New staging on half east side of house No. 2. New trough for washing pots. Twenty-four new cold-frame sash glazed and painted. Eight windows in men's lodge repaired and painted. One heater for houses Nos. 5, 6, 7, and 8 repaired, and three lines of 1½-inch pipe and radiator put in house No. 8 for extra heat.

REPAIRS TO CONCRETE WALKS.

Walk in front of five houses, Nos. 7, 8, 9, 10, and 11, and the necessary repairs to other foot walks. Also trap lowered in front of house No. 8.

EXPENDITURES.

ANNUAL REPAIRS, CAPITOL.

Pay rolls.....	\$18,835.01
Labor vouchers.....	310.80
Machinery, iron works, etc.....	2,851.24
Brushes, sponges, and soap.....	848.12
Lumber and mill work.....	1,739.87
Hardware.....	713.46
Steam fitting and packing.....	349.11
Lime, etc., brick cement.....	728.37
Paints, oils, and glass.....	2,803.04
Stone and marble work.....	42.50
Silver, nickel, and gilding.....	213.60
Electric wiring, etc.....	370.80
Drawing and blue prints.....	3.10
Forage, harness, etc.....	150.40
Hauling and expressage.....	73.18
Repairs to ranges.....	3.25
Plumbing materials.....	1,715.28
Elevator repairs, etc.....	12,658.85
Roof and tin work.....	410.85
Painting and decorating.....	2,138.00
Fuel for shops.....	29.25
Tiling.....	1,618.28
Stationery.....	199.51
Miscellaneous.....	122.39
Photographic materials.....	9.62
Fire extinguishers.....	150.00
Unexpended balance for bills.....	3.00
Total.....	49,090.86

Amount appropriated, sundry civil bill, approved June 6, 1900.....	\$32,500.00	
Amount appropriated, general deficiency bill, approved March 3, 1901.....	15,196.36	
Amount appropriated, general deficiency bill, approved March 3, 1901.....	1,394.50	
		<u>49,090.86</u>

IMPROVING CAPITOL GROUNDS.

Pay rolls.....	\$14,524.74
Labor vouchers.....	214.13
Plants and seeds.....	269.05
Fertilizers.....	124.25
Tools and machinery.....	6.28
Brushes, brooms, etc.....	75.00
Moving shelter house.....	65.00
Fuel.....	23.45
Plumbing materials.....	272.45
Hardware.....	7.48

Paving and repairs	\$193. 24
Freight and expressage	93. 31
Hose and couplings.....	40. 00
Lumber.....	7. 93
Paints and oils	16. 00
Conduit	782. 15
Unexpended balance reserved for bills.....	67. 71
Total	16, 782. 15
Amount appropriated sundry civil bill, approved June 6, 1900. \$16, 000. 00	
Amount appropriated general deficiency bill, approved March 3, 1901.....	782. 15
	16, 782. 15

LIGHTING CAPITOL, GROUNDS, ETC.

Pay rolls	\$21, 064. 28
Labor vouchers	131. 75
Incandescent and arc lamps	1, 718. 66
Wire and material.....	1, 895. 24
Fixtures	1, 207. 32
Iron and metal work	24. 08
Tools, etc.....	7. 50
Hauling and expressage.....	57. 34
Hardware	196. 12
Nickel plating.....	20. 00
Steam pipe and fittings	1, 805. 43
Miscellaneous .....	. 50
Gas	1, 278. 00
Cleaning material	45. 38
Cement, lime, etc.....	26. 26
Pipe packing.....	207. 81
Paint, oil, etc	7. 00
Electric instruments.....	295. 00
Lumber	12. 33
Total	30, 000. 00
Amount appropriated sundry civil bill, approved June 6, 1900.....	30, 000. 00
For gas service for the month of December, 1899, and January, February, March, April, May, and June, 1900.....	1, 122. 70
Amount appropriated in deficiency bill, approved March 3, 1901.....	1, 122. 70

STEAM HEATING AND MACHINERY, SENATE.

Pay rolls	\$1, 301. 50
Labor by voucher	33. 00
Steam pipe and fittings	507. 73
Rubber packing, etc.....	142. 50
Hardware	87. 41
Electric machinery.....	194. 90
Repairs to elevators	338. 45
Ironwork and grate bars	297. 64
Mortar, cement, sand, etc.....	12. 50
Expressage	1. 20
Pipe covering	6. 87
Tools	102. 29
Electric bells.....	250. 00
Miscellaneous	9. 01
Total	3, 285. 00
Amount appropriated sundry civil bill, approved June 6, 1900.....	3, 285. 00

ENGINE HOUSE, SENATE, AND HOUSE STABLES.

Pay rolls	\$567. 75
Labor by voucher	76. 50
Plumbing work and materials.....	254. 97
Hardware	178. 76
Roofing material and work.....	241. 48

Lumber and millwork.....	\$93.22
Paints, oil, etc.....	27.76
Lime, cement, etc.....	21.89
Iron castings.....	12.26
Miscellaneous.....	10.00
Unexpended balance reserved for bills.....	15.41
Total.....	1,500.00
Amount appropriated sundry civil bill, approved June 6, 1900.....	1,500.00

FLAGS FOR CAPITOL.

Flags.....	\$92.00
Halyard rope.....	5.00
Repairing flags.....	2.50
Unexpended balance.....	.50
Total.....	100.00
Amount appropriated sundry civil bill, approved June 6, 1900.....	100.00

Respectfully submitted.

EDWARD CLARK,
Architect United States Capitol.

APPENDIX.

STATEMENT SHOWING THE VARIOUS IMPROVEMENTS DURING FISCAL YEAR ENDED JUNE 30, 1901, AND NOT INCLUDED IN THE BODY OF THE REPORT.

LIGHTING CAPITOL AND GROUNDS.

NEW WORK.

Reconstructed central portion wired.	
Number of lamps, 16 candlepower	754
Number of lamps, 32 candlepower	6
Number chandeliers	35
Number 4-pound fixtures	26
Number 3-pound fixtures	2
Number 1-pound fixtures	12
Number brackets, 1-pound	105
Number brackets, 3-pound	2

House.—No. 4/° feeders to east elevator; No. 4/° feeders to west elevator; No. 2/° feeders to central elevator; No. 1 feeders to ventilating motor; 3 pair 4/° feeders to distributing centers.

Senate.—No. 2/° feeders to central elevator; 3 pair 4/° feeders to distributing centers.

Supreme Court.—No. 1 feeders to elevator.

Crypt.—Wired. Number of 16-candlepower lamps, 24.

REWIRING.

House.—Basement corridors; Speaker's private room; restaurant; Committee on the Library; Committee on Insular Affairs; Committee on Indian Affairs; Committee on Foreign Affairs; Committee on Expenditures in the Interior Department; Committee on Rivers and Harbors; Committee on Education; Committee on Ventilation and Acoustics; Committee on Labor; Committee on the Census; Committee on Revision of the Laws; Committee on Private Land Claims; Committee on Reform in the Civil Service; Committee on Expenditures in the Department of Justice; old plumber shop.

Senate.—Senate library; office of the Secretary; Committee on Education and Labor; Committee on the Library; Committee on the Census; Committee on Woman Suffrage; Committee to Examine the Several Branches of the Civil Service.

Supreme Court.—North corridor; Supreme Court basement.

NEW CHANDELIERS.

House.—Committee on the Census; Committee on Reform in the Civil Service; Committee on Labor; Committee on Education; Committee on Ventilation and Acoustics; Committee on Levees and Improvements of the Mississippi River; Committee on Expenditures in the Department of Justice; Committee on the Library; Committee on Private Land Claims; Committee on Indian Affairs; Committee on Foreign Affairs; Committee on War Claims; old plumber shops; Committee on Expenditures in the Interior Department.

Senate.—Committee on the Census; Committee on the Library; Committee on Pacific Islands and Porto Rico; Committee on Additional Accommodations for the Library of Congress; Committee on Education and Labor; Committee on Woman Suffrage;

Committee to Examine the Several Branches of the Civil Service; Committee on Public Health and National Quarantine; Committee on Interoceanic Canals; Senate Library; office of the Secretary.

NEW BRACKETS.

House corridors.—125, 1 light; 12, 2 lights.

Senate corridors.—59, 1 light; 6, 2 lights.

PAINTING AND DECORATING OF ROOMS.

SENATE SIDE.

- (1) Committee on Naval Affairs, painted and decorated.
- (2) Committee on Foreign Relations, painted and decorated.
- (3) Committee on Agriculture, painted and decorated.
- (4) Committee on Indian Affairs, back room painted and windows painted in the front room.
- (5) Committee on Pensions, woodwork and walls painted.
- (6) Committee on Woman Suffrage, painted.
- (7) Committee on the Five Civilized Tribes, painted.
- (8) Committee to Examine the Several Branches of the Civil Service, painted.
- (9) Committee on Education, painted.
- (10) Committee on Transportation and Sale of Meat Products, painted.
- (11) Committee on Additional Accommodations for the Library of Congress, painted.
- (12) Committee on Public Lands, woodwork painted and wall touched up.
- (13) The Senate library reading room, painted and decorated.
- (14) Rooms in Senate Terrace, Nos. 1, 3, 5, 7, 9, 11, 13, 15, 17, 2, 4, 6, and corridor, touched up.
- (15) Committee room on Finance, windows painted and walls touched up.
- (16) Senate post-office, wall touched up and windows painted.
- (17) Senate restaurant, partition painted and wall touched up.
- (18) The Senators' room in restaurant, painted and decorated.
- (19) Committee on Appropriations, woodwork painted.
- (20) The basement corridor by the Senate barber shop, painted.
- (21) The windows on the Senate from the gallery to the basement floor, painted.
- (22) The hall, way from the Senate restaurant to the east elevator, painted; stationery room, painted.
- (23) The corridor and staircase, east side, painted.
- (24) Senate library stairway, painted.
- (25) Senate library corridor, painted.
- (26) Senate library pack rooms, painted.

HOUSE SIDE.

- (27) Committee on Insular Affairs, painted and decorated.
 - (28) Committee on Indian Affairs, painted and decorated.
 - (29) Committee on the Civil Service, painted.
 - (30) Committee on Coinage, Weights, and Measures, painted.
 - (31) Committee on Census, painted.
 - (32) Committee on Ventilation and Acoustics, painted.
 - (33) Committee on Education, painted.
 - (34) Index clerk's room, painted.
 - (35) Committee on Revision of Laws, painted.
 - (36) The rooms in the House Terrace, Nos. 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, touched up.
 - (37) Corridors in the House Terrace, painted.
 - (38) Speaker's room, painted.
 - (39) The House Lobby, touched up.
 - (40) Windows and doors on the House floor, painted.
 - (41) Corridor on the House floor, doors and windows, painted.
 - (42) Windows on the basement floor painted and woodwork touched up.
 - (43) House Press Gallery ceiling calcimined and walls touched up.
 - (44) Committee on Levees and Improvements of the Mississippi River, touched up.
- Also 66 signs for various committee and other rooms throughout the building.

List of statuary, United States Capitol.

STATUARY HALL.

John Peter Gabriel Muhlenberg, Pennsylvania; Robert Fulton, Pennsylvania; Ethan Allen, Vermont; Jacob Collamer, Vermont; Lewis Cass, Michigan; James A. Garfield, Ohio; William Allen, Ohio; John M. Kenna, West Virginia; Oliver P. Morton, Indiana; John Stark, New Hampshire; Daniel Webster, New Hampshire; Nathaniel Greene, Rhode Island; Roger Williams, Rhode Island; Robert Livingston, New York; George Clinton, New York; Roger Sherman, Connecticut; Jonathan Trumbull, Connecticut; Richard Stockton, New Jersey; Philip Kearny, New Jersey; James Shields, Illinois; James Marquette, Wisconsin; Samuel Adams, Massachusetts; John Winthrop, Massachusetts; William King, Maine; plaster model of George Washington (not a State statue), by Houdon; plaster model, Goddess of Freedom, T. Cranford, sculptor.

ROTUNDA.

E. D. Baker, Thomas Jefferson, Abraham Lincoln, Alexander Hamilton, U. S. Grant.

HOUSE CORRIDOR.

Foot of staircase, west side, bronze bust and pedestal of Indian chief.
Foot of staircase, east side, statue of Thomas Jefferson.

LERK'S ROOM OF HOUSE OF REPRESENTATIVES.

Bust and bracket of John Quincy Adams.

SENATE CORRIDOR.

Foot of staircase, west side, statue of John Hancock.
Foot of staircase, east side, statue of Benjamin Franklin.

NORTH LOBBY—SENATE GALLERY.

Bust and pedestal, Chippewa chief; bust and pedestal, Thomas Cranford; bust and pedestal, T. Kosciusko; bust and pedestal, Garibaldi; bust and pedestal, Charles Sumner; bust and pedestal, R. R. Pulaski; bust and pedestal, Abraham Lincoln.

BUSTS AND BRACKETS IN SUPREME COURT.

John Jay, John Rutledge, Oliver Elsworth, John Marshall, Roger B. Taney, Salmon P. Chase, Morris E. R. White.

FOOT OF TERRACE BETWEEN THE TWO WESTERN STAIRWAYS.

Bronze statue, John Marshall.

ON THE EASTERN PLAZA.

Colossal statue of George Washington, by Horatio Greenough.

EAST CENTRAL PORTICO—GROUPS AND STATUES.

The Rescue, by Horatio Greenough; The Discovery, by Luigi Presicoo; Mars, by Luigi Presicoo; Ceres, by Luigi Presicoo.

IN SENATE GALLERY—BUSTS AND PEDESTALS OF VICE-PRESIDENTS.

John Adams, Thomas Jefferson, Aaron Burr, George Clinton, Eldridge Gerry, Daniel Tompkins, J. C. Calhoun, A. E. Stevenson, T. A. Hendricks, Millard Fillmore, William R. King, J. C. Breckenridge, Hannibal Hamlin, Schuyler Colfax, Henry Wilson, William A. Wheeler, Chester A. Arthur, Levi P. Morton.

NORTH VESTIBULE, MAIN FLOOR SENATE.

John Tyler, Andrew Johnson.

VICE-PRESIDENT'S ROOM.

Bust and bracket, Henry Wilson; bust and bracket, Lafayette Foster.

List of paintings, United States Capitol.

HEAD OF STAIRCASE, HOUSE OF REPRESENTATIVES, EAST SIDE.

Emancipation Proclamation, by Frank Carpenter; portrait of Henry Clay, by J. Nagle; portrait of Gunning Bradford, by J. Nagle; portrait of Charles Carroll, by Sully.

HALL OF HOUSE OF REPRESENTATIVES.

Portrait of George Washington, by John Vanderlyn; portrait of Lafayette, by Ary Shaffer; painting, Entrance into Monterey, by A. Bierstadt; painting, Discovery of the Hudson, by A. Bierstadt; painting on the wall, Cornwallis Sues for Cessation of Hostilities under a Flag of Truce, by C. Brumidi.

ROOM OF COMMITTEE ON APPROPRIATIONS, HOUSE OF REPRESENTATIVES.

Portrait of James A. Garfield.

ROOM OF COMMITTEE ON INDIAN AFFAIRS.

Eight paintings, representing Indian Life.

ROOM OF COMMITTEE ON MILITARY AFFAIRS.

Paintings of Fort Knox, Maine; Fort Tyler, Florida; Fort Snelling, Minnesota; Fort Seamel and George, Maine; Fort Defiance, New Hampshire; Fort Sumter, before the war, South Carolina; Fort Sumter, after the war, South Carolina; Fort Sumter, after the bombardment, South Carolina; Fort Mackinac, Michigan; Fort Mifflin, Pennsylvania; Lafayette, New York; Tompkins and Wadsworth, New York; West Point, New York; Fort Delaware, Delaware; Fort Jefferson, Florida; Fort Trumbull, Fort Rice, Dakota.

SPEAKER'S ROOM.

Portrait of ex-Speaker John W. Taylor, New York.

STATUARY HALL.

Portrait of Joshua R. Giddings.

ROTUNDA.

Signing the Declaration of Independence, by John Trumbull; Surrender of General Burgoyne, by John Trumbull; Surrender of Cornwallis, by John Trumbull; General Washington Resigning his Commission, by John Trumbull; Embarkation of the Pilgrims, by Robert Weir; Landing of Columbus, by John Vanderlyn; Discovery of the Mississippi, by William H. Powell; Baptism of Pocahontas, by John G. Chapman.

HEAD OF MARBLE STAIRCASE, HOUSE OF REPRESENTATIVES, WEST SIDE.

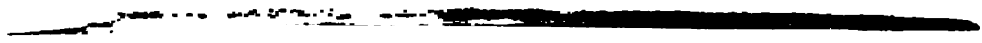
Westward the Course of Empire takes its Way, by Emanuel Luitze.

UPPER LANDING OF STAIRCASE, WEST SIDE.

Portrait of John Marshall, copy by Richard N. Brooks.

SPEAKER'S LOBBY, HOUSE OF REPRESENTATIVES—EX-SPEAKERS.

Frederick Muhlenberg, of Pennsylvania; Robert C. Winthrop, of Massachusetts; John W. Jones, of Virginia; James L. Orr, of South Carolina; Henry Clay, of Kentucky; William Pennington, of New Jersey; Joseph B. Varnum, of Massachusetts;



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Robert M. T. Hunter, of Virginia; Andrew Stevenson, of Virginia; Theodore Sed-
 wick, of Massachusetts; Schuyler Colfax, of Indiana; Thomas B. Reed, of Maine;
 Jonathan Trumbull, of Connecticut; Nathaniel P. Banks, of Massachusetts; John
 White, of Kentucky; Jonathan Dayton, of New Jersey; John W. Taylor, of New
 Jersey; John Bell, of Tennessee; Philip P. Barbour, of Virginia; Linn Boyd, of Ken-
 tucky; Michael C. Kerr, of Indiana; Samuel J. Randall, of Pennsylvania; James G.
 Blaine, of Maine; Charles J. Crisp, of Georgia; John G. Carlisle, of Kentucky;
 Galusha A. Grow, of Pennsylvania; J. Warren Keifer, of Ohio; J. W. Davis, of
 Indiana; Howell Cobb, of Georgia; James K. Polk, of Tennessee; Langdon Cheves,
 of South Carolina.

MAIN CORRIDOR OF SENATE.

East side: Portrait of George Washington, by Gilbert Stewart; portrait of John
 Adams, copy, by Andrews.

West side: Portrait of Thomas Jefferson, copy from Thomas Sully; portrait of
 Patrick Henry, by Martin.

HEAD OF GRAND STAIRCASE.

West side: Battle of Chepultepec, by James Walker; portrait of George Washing-
 ton, by Charles Wilson Peale, 1779.

East side: Battle of Lake Erie, by William H. Powell; portrait of Henry Clay,
 portrait of Daniel Webster, portrait of John C. Calhoun, by H. F. Darby.

SUPREME COURT ROBIN ROOM.

Portraits of John Jay (Chief Justice), by Gray, after Gilbert Stewart; Taney (Chief
 Justice), by Healey; Oliver Ellsworth (Chief Justice), John Marshall (Chief Justice),
 by Rembrandt Peale; Salmon P. Chase (Chief Justice), by W. Cogswell; Norman W.
 Waite (Chief Justice), by Cornelia Fassett; Rutledge (Chief Justice), by Robert
 Hinkley; John Marshall (Chief Justice), by Martin, 1814.

COMMITTEE ON RULES.

Portrait of Pocahontas.

ROOM OF SERGEANT-AT-ARMS, SENATE.

Portrait of Prof. Joseph Henry, by H. Ulke.

ROOM OF VICE-PRESIDENT.

Portrait of Washington, by Rembrandt Peale.

SENATE LOBBY, GALLERY FLOOR.

Grand Canyon of the Yellowstone, by T. Moran; Chasm of the Colorado, by T.
 Moran; portrait of Charles Sumner, by Ingalls; portrait of General Dix, by Mrs.
 Morell; Electoral Commission, by Cornelia Fassett; First Flight of Ironclads, by
 W. F. Hakall; Table Rock, Niagara Falls, by Regis Gignoux; portrait of Lincoln, in
 Mosaic, by Salvaiti; portrait of James A. Garfield, in Mosaic, by Salvaiti; Miss Mott
 directing Generals Marion and Lee to burn her mansion to dislodge the British,
 artist, John Blake White (presented by Octavus A. White, M. D., LL. D., 1827);
 General Marion inviting a British officer to share his meal, 1830, artist, John Blake
 White (presented by Octavus A. White, M. D., LL. D.); Sergeants Jasper and New-
 ton rescuing American prisoners from the British, artist, John Blake White (pre-
 sented by Octavus A. White, M. D., LL. D., 1820); Battle of Fort Moultrie, 1812,
 artist, John Blake White (presented by Octavus A. White, M. D., LL. D., 1820).

SENATE COMMITTEE ROOMS.

Committee on Arid Lands: Portrait of Gen. George H. Thomas; artist, S. W.
 Price. Portrait of John Paul Jones.

Committee on Finance: Portrait of George Washington, by Gilbert Stewart; portrait
 of Henry Laurens, by John S. Copley.

Committee on Judiciary: Portrait of Thomas Hendricks.

Committee on Library: Portrait of Benjamin West, by Benjamin West.

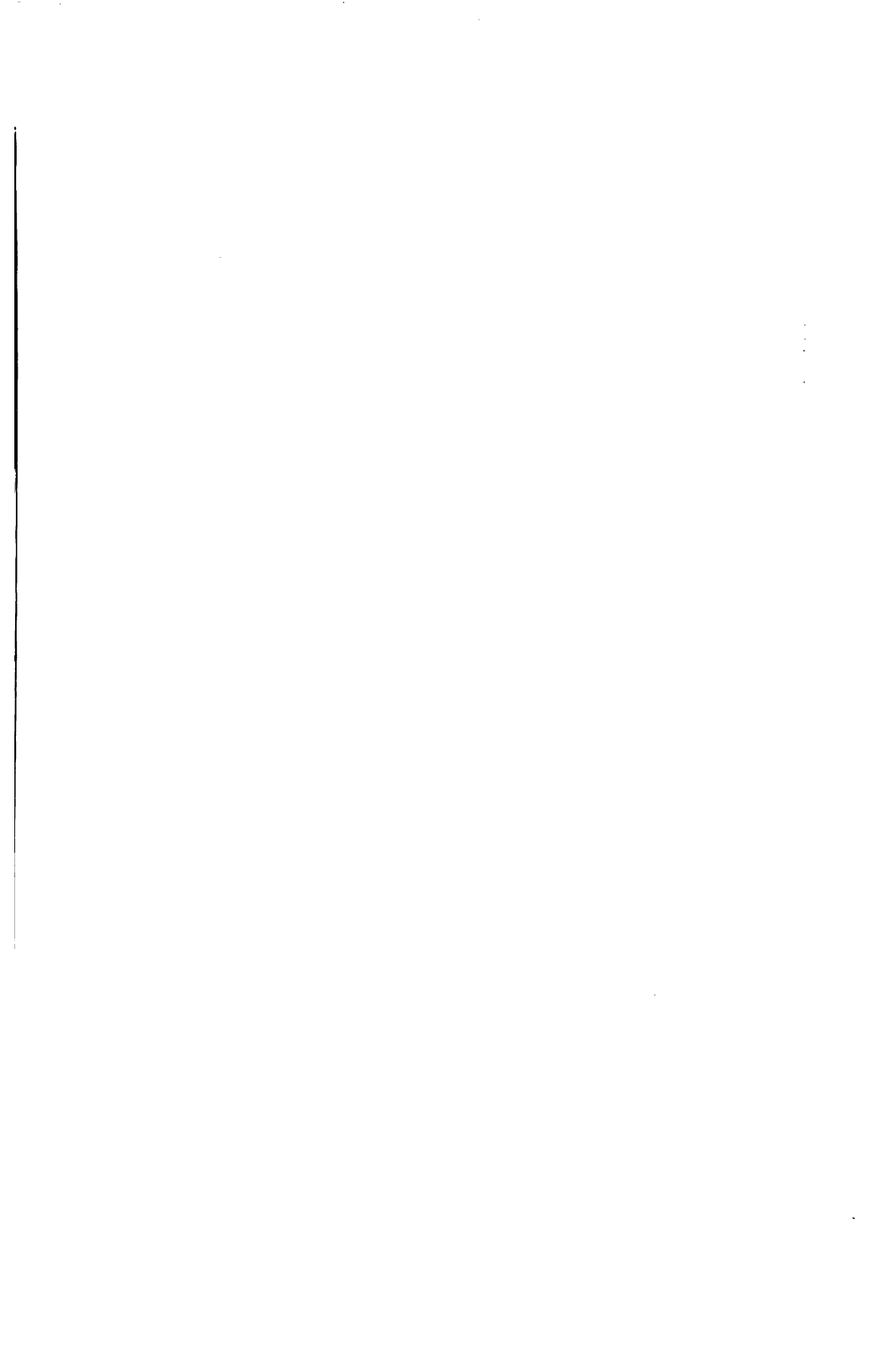
Committee on Public Lands: "Recall of Columbus," by A. G. Heaton.

Committee on Rules: Portrait of U. S. Grant, by Cogswell.



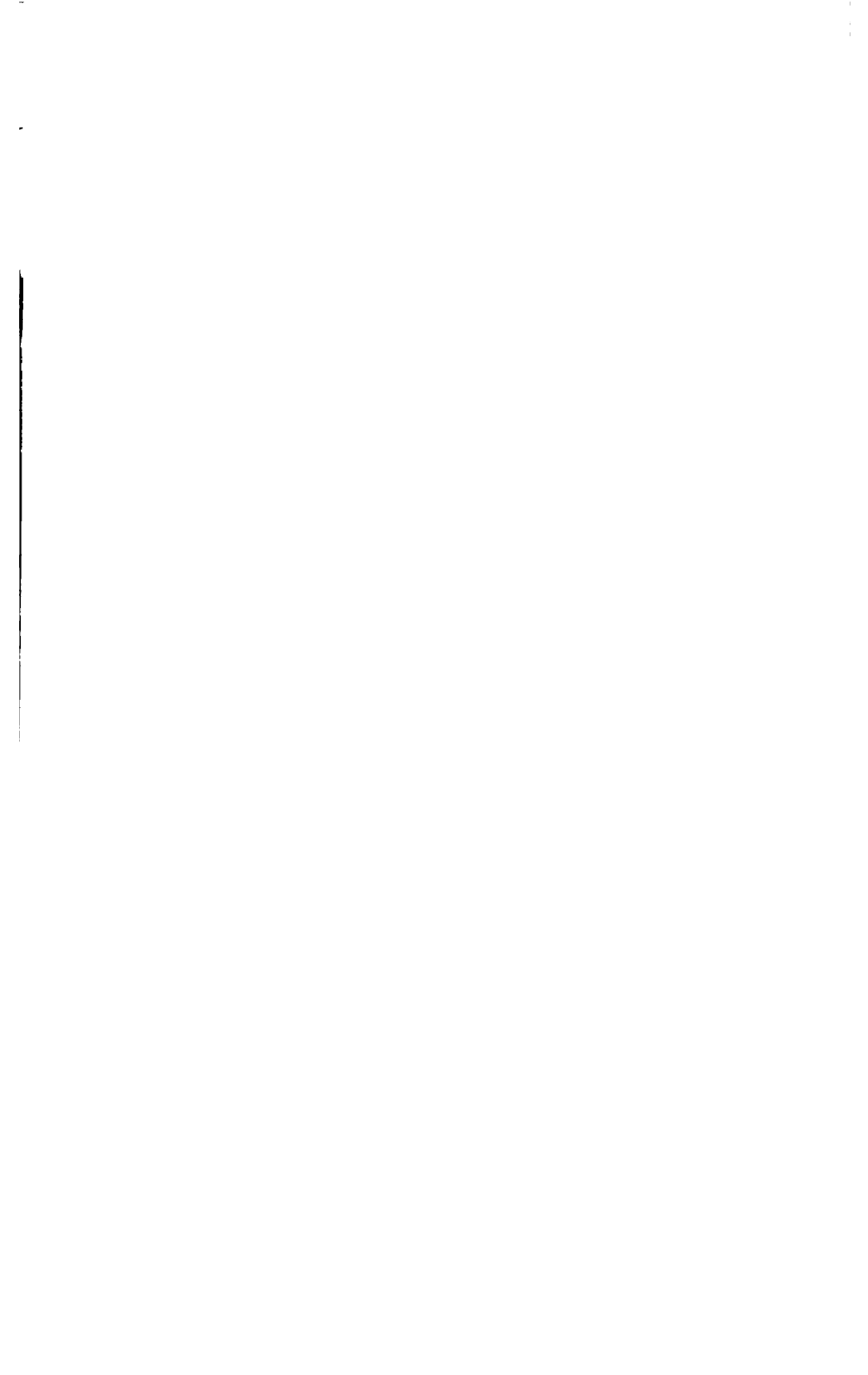


OLD FAITHFUL GEYSER.





GREAT FALLS OF THE YELLOWSTONE.





GRAND CANYON FROM GRAND VIEW.

R E P O R T
OF THE
ACTING SUPERINTENDENT OF THE YELLOWSTONE NATIONAL PARK.

YELLOWSTONE NATIONAL PARK,
OFFICE OF SUPERINTENDENT,
Mammoth Hot Springs, Wyo., October 14, 1901.

SIR: In compliance with instructions contained in your letter of June 22, 1901, I have the honor to submit the following report of the condition of affairs in, and the management of, the Yellowstone National Park since the fiscal year ended June 30, 1900.

I arrived at Fort Yellowstone May 8, 1901, and, in compliance with the provision of Special Orders, No. 98, Headquarters of the Army, dated April 27, 1901, assumed command of the troops in the Yellowstone National Park. Under instructions contained in your letter of May 15, 1901, I also assumed the duties of Acting Superintendent of the Yellowstone National Park, receipting to Capt. Geo. W. Goode, First Cavalry, my predecessor, for all Government property pertaining to the Interior Department.

I found but one troop of cavalry stationed here, which force was entirely inadequate for the proper protection and police of the park, but, knowing that there were no other troops available, did not ask for more men until later, when, on account of the unusually dry season and the large number of camping parties in the park, I found it absolutely necessary to ask for another troop. In compliance with my request to the adjutant-general, Department of Dakota, dated July 22, 1901, Capt. E. Lindsley, First Cavalry, with 40 men of his troop, were sent to report to me for temporary duty, and later on the remainder of his troop joined him. Captain Lindsley arrived at Fort Yellowstone with his troop on August 3, and was at once sent to a camp in the Lower Geyser Basin, where they did much hard work and rendered valuable service in extinguishing some large forest fires.

WATER SUPPLY.

The unusually dry season soon developed the fact that the existing water supply for the post and the Mammoth Hotel was entirely too small, and that as a consequence much inconvenience was experienced by both tourists and all who were living at the Mammoth Hot Springs. To remedy this trouble, a new reservoir has been built which holds about 2,000,000 gallons of water. This reservoir is entirely completed and the work of laying the necessary pipes to connect with our present system will be completed in a few days. The new system will give an

ample supply of good water for the post of Fort Yellowstone and the Mammoth Hot Springs Hotel, and also permit the irrigation and beautifying of all of the plateau upon which the post and hotel are located. We are greatly indebted to Capt. Hiram M. Chittenden, United States Corps of Engineers, for this good work. He made all of the necessary surveys, prepared the plans, and supervised the work of construction. The Quartermaster's Department furnished the necessary funds and material.

FIRES IN PARK.

There have been three serious fires in the park during the past season—one in the Gibbon Canyon, one at the Upper Geyser Basin, and one on Pelican Creek. The first, in Gibbon Canyon, was started by a camper by the name of John Baegle. This man was traveling through the park alone, with one saddle and one pack horse. He camped close to one of the Wylie lunch stations, and at night, becoming frightened by the bear, he built three large fires about his camp. These he was compelled to extinguish some time during the night by the patrol from Norris, and he was cautioned about the danger of forest fires, but he rebuilt the fires after the patrol left him and the next morning failed to properly extinguish them, and as a result about noon these fires started up again and soon spread into a serious forest fire, which caused some slight delay for one day in the travel over that part of the road through the canyon.

The man who started this fire was arrested at the Riverside Station, brought to Fort Yellowstone and sent before Judge Meldrum, the United States commissioner. He was fined \$50 and costs, and being unable to pay his fine, served out his sentence in the post guardhouse. This arrest and the sentence, though light, had a good effect in rendering other campers more careful about their fires.

The second fire commenced near the Riverside Geyser, at a point where there had been no camping, and its cause could not be ascertained. It was probably caused by some tourist or fisherman lighting a pipe or cigar and carelessly throwing away the lighted match. This fire gave much trouble and kept Captain Lindsley's entire troop at work with it for nearly a month.

The third fire, on Pelican Creek, was caused by lightning and did but little damage, as it was soon extinguished by a heavy rain. All of these fires commenced about the same time and just before the arrival of Captain Lindsley's troop. Had this additional troop been sent into the park a little sooner it is probable that both of the fires, at the Gibbon Canyon and the Upper Geyser Basin, could have been checked or extinguished much more quickly than they were; with more men to patrol the roads they might have been prevented entirely.

FISH AND FISH HATCHERY.

There is scarcely any feature in the park which tourists enjoy more than the trout fishing, which is now to be had in almost any stream in the park. These trout have been planted in nearly all streams in the park except in those that are tributary to the Yellowstone River, and the experiment has been so successful that there are now but few places in this country where better sport can be had by the fisherman than in the park. It is particularly interesting to the true sportsman for the reason that five different species of trout can be taken within the limits

Report Superintendent Yellowstone National Park, 1901.



BIRD'S-EYE VIEW OF NEW RESERVOIR.



BIRD'S-EYE VIEW OF NEW RESERVOIR.

of the park. These are the native or black-spotted trout, the rainbow, the Von Behr, the Loch Leven, and the eastern brook trout.

There is no restriction placed on the fishing in the park save that fish can not be caught and sold for the market, and in order that it may never be necessary to make any restrictions it is strongly urged that a small fish hatchery be established here. If this can be done the streams can be kept so full of trout that it will be impossible for the tourists to deplete them. Mr. D. C. Booth, who is in charge of the United States hatchery at Spearfish, S. Dak., visited the park this summer, and has reported a favorable location for a hatchery on Willow Creek, about eight miles from the Mammoth Hot Springs. Mr. Booth collected about 1,000,000 eggs from the Yellowstone Lake trout, and sent them to the hatchery at Spearfish. He brought into the park and placed in Willow Creek about 10,000 eastern brook trout, and has just informed me that he now has about the same number of rainbow trout, which can be had on application to the United States Fish Commissioner. Application for them has just been submitted, and as soon as received they will be planted in the Gibbon River.

WEATHER BUREAU.

Prof. Willis L. Moore, Chief of the Weather Bureau, visited the park a short time since, and expressed a desire to establish a weather station here. He wishes to establish a regular station on Capitol Hill, near the Mammoth Hot Springs, and a substation at the lake. I believe that such a station would be of advantage to the park as well as the Weather Bureau. The publication of the temperature here during the summer would call attention to the desirability of the park as a summer resort and add to its popularity. It is therefore recommended that the Chief of the Weather Bureau be authorized to establish the station, as suggested.

BOUNDARY SURVEYS.

The boundaries of the park on the north, west, and south sides are now surveyed and marked in such a way that hereafter there can be little or no excuse for persons entering the park from those three sides without knowing that they have done so. There still remains unsurveyed about 50 miles of the boundary on the eastern side of the park, extending from the monument established by Captain Bromwell, United States Engineers, on the boundary east of Yellowstone Lake, to the northern boundary of the park. It has been estimated by Mr. Edw. F. Stahlc, who completed the surveys of the north, south, and west boundaries this year, that the unsurveyed portion of the line on the east could be measured and marked for \$3,000, or at the rate of \$60 per mile. This line will traverse some of the roughest mountains of the park, and it is of the greatest importance that it should be clearly marked. I therefore strongly urge that the necessary authority be granted the Commissioner of the General Land Office to complete this survey.

GAME.

The large game in the park, with the exception of the buffalo, seems to be even more numerous than ever; at least more has been seen this year by the tourists than ever before, and it is believed that this is due

to the fact that the regulation concerning dogs in the park has been pretty strictly enforced. This regulation will be even more strictly enforced next year, for it is a well-known fact that one small dog running at large, while it will do no harm to the large game, will drive it so far back from the roads that none will be seen by the average tourist. As the game is one of the most interesting features of the park to visitors, it is desirable that an opportunity should be given them to see it, and with this end in view it should be disturbed as little as possible. So far as I have been able to find out, not a single head of large game has been killed in the park during the past year, and but one case of poaching has been reported. This was the case of Henry W. Meyer, charged with trapping two beaver near Soda Butte.

It has been impossible for me up to the present time to ascertain accurately the number of buffalo in the park, but their number will be accurately determined as soon as the snow falls, and a special report of the matter will be submitted as soon as possible. It has been reported that one buffalo bull was killed last winter in the Jackson Hole country, south of the park. This was in violation of the laws of Wyoming, and the offender should certainly be punished if possible. I will report the matter to the Wyoming authorities if I can get any evidence in the case. The buffalo are protected by the laws of Wyoming, Idaho, and Montana, and it is now possible that the small herd remaining in the park may increase, though it may be necessary to introduce some new blood in this herd, and possibly it may be well to start an entirely new one and to keep it under fence, turning the animals loose gradually as the herd increases. From what I can hear I do not believe there are more than 25 buffalo left in the park.

The elk are very numerous, but unless something is done to prevent the encroachment of settlers on their winter range south of the park and the slaughter of them merely for their tusks, it is possible that they will soon be reduced to the number that can live entirely within the limits of the park; and this number I believe to be about 25,000. It is reported to me that the Teton Forest Reserve is the winter range for the elk that live in the southern part of the park during the summer; it is therefore to be hoped that this reserve will never be thrown open for settlement, and that it may eventually be acquired as a part of the National Park.

The deer in the park are quite numerous and very tame.

The antelope would undoubtedly have become extinct in the park in a short time but for the fact that Montana has this year passed a law which absolutely prohibits the killing of these beautiful animals for an indefinite period. This will give them a chance, and they will probably increase very rapidly in the future.

The bear have increased greatly in numbers, and during the past season they have been a source of great amusement and interest to the tourists, for at both the Fountain and the Canyon hotels anywhere from fifteen to twenty bear—grizzly, black, and brown—could be seen about the garbage piles every evening. They could also be seen in greater or less numbers at any of the other hotels or lunch stations.

Of the smaller game the beaver have probably increased more rapidly than anything else, and their dams and houses are now to be found in almost all of the smaller streams in the park.

MILITARY POST, FORT YELLOWSTONE.

This is one of the most neatly built and attractive-looking little posts in the country, but it is too small for the growing needs of the park. As the park is opened up by new roads and as the travel of all kinds increases the danger of forest fires and the opportunities for poaching and other violations of the park rules increases. This will necessitate more outposts and more patrols throughout the reservation. It is therefore recommended that the post be enlarged to a four troop or squadron post. It is further recommended that a suitable house be constructed for the use of the commanding officer and acting superintendent of the park, in order that he may properly entertain the many distinguished visitors who come into the park, with letters of introduction to him, from all parts of the country.

The post should be lighted by electricity instead of by oil, as a matter of safety and convenience. A suitable location for an electric plant can be found within 300 yards of the post, which plant could be run by water power and therefore at a very reasonable cost.

YELLOWSTONE LAKE BOAT COMPANY.

The boat provided by this company is apparently seaworthy, in good repair, stanch, and safe. The trip in this boat from the Thumb to the Lake Hotel is greatly enjoyed by the majority of tourists who take it.

While the service on steamer has apparently been entirely satisfactory to the tourists, there have been many verbal complaints concerning the excessive charges for the hire of small boats, fishing tackle, etc., by this company. The tourists who made these complaints declined to put their statements in writing, on the ground that they did not care to be bothered further about the matter, yet they wished it corrected. The only written complaint received was from the Hon. Alex. Beitler, judge of court of common pleas, of Philadelphia, Pa.

The house occupied by Mr. Waters, the president of the company, is a very neat and pretty structure. The small boats and boathouse are in good condition. The store is an unsightly building and badly located, for it is entirely too near the proposed addition to the Lake Hotel. The barns and corrals are also too near the hotel, and are objectionable for the reason that the cattle and other stock owned by the company collect about them at various times of the day, and render the place filthy and unsightly by their manure. A remedy for this trouble has been suggested in a special report on the subject.

The Lake Hotel has been a very popular place during the past season on account of the delightfully cool weather always to be found there, and also on account of the fine fishing in the lake. This place will increase in popularity as its advantages as a summer resort become known, and in order to remedy the complaints about the boat question it is recommended that some competition be introduced in this business. A few naphtha launches would add greatly to the attractions of the lake.

REGULAR TRANSPORTATION COMPANIES IN THE PARK.

THE YELLOWSTONE NATIONAL PARK TRANSPORTATION COMPANY.

This company is by far the finest and best-equipped transportation company operating in the park, and there are few, if any, better to be found anywhere in the country. Their Concord coaches, seating from seven to ten people, are the finest and most comfortable wagons made. They also have a number of small surreys seating three persons besides the driver, which are intended to carry small parties who prefer to travel by themselves. That their teams are excellent and drivers skillful and careful is shown by their remarkable freedom from accidents during the past season. This company has operated in perfect harmony during the past season with the Yellowstone Park Association or Hotel Company, and has done away with many things which have heretofore caused friction between the two companies and inconvenience to the tourist. This company has recently suffered a serious loss in the death of its manager, Mr. S. S. Huntley. Mr. Huntley, by his ability as a manager, by his sterling integrity and honesty, and by his genial and courteous treatment of all who came in contact with him, had made a host of friends not only for himself and his company, but for the park as well. In all of his business transactions Mr. Huntley never lost sight of the true interest of the Yellowstone National Park, and was at all times exceedingly careful not to ask for anything or to do anything that would in the least mar the beauty of the park or conflict with its best interest in any way. By his death the park has lost a true and valuable friend. No complaints have been received concerning this company.

MESSRS. HUMPHREY AND HAYNES.

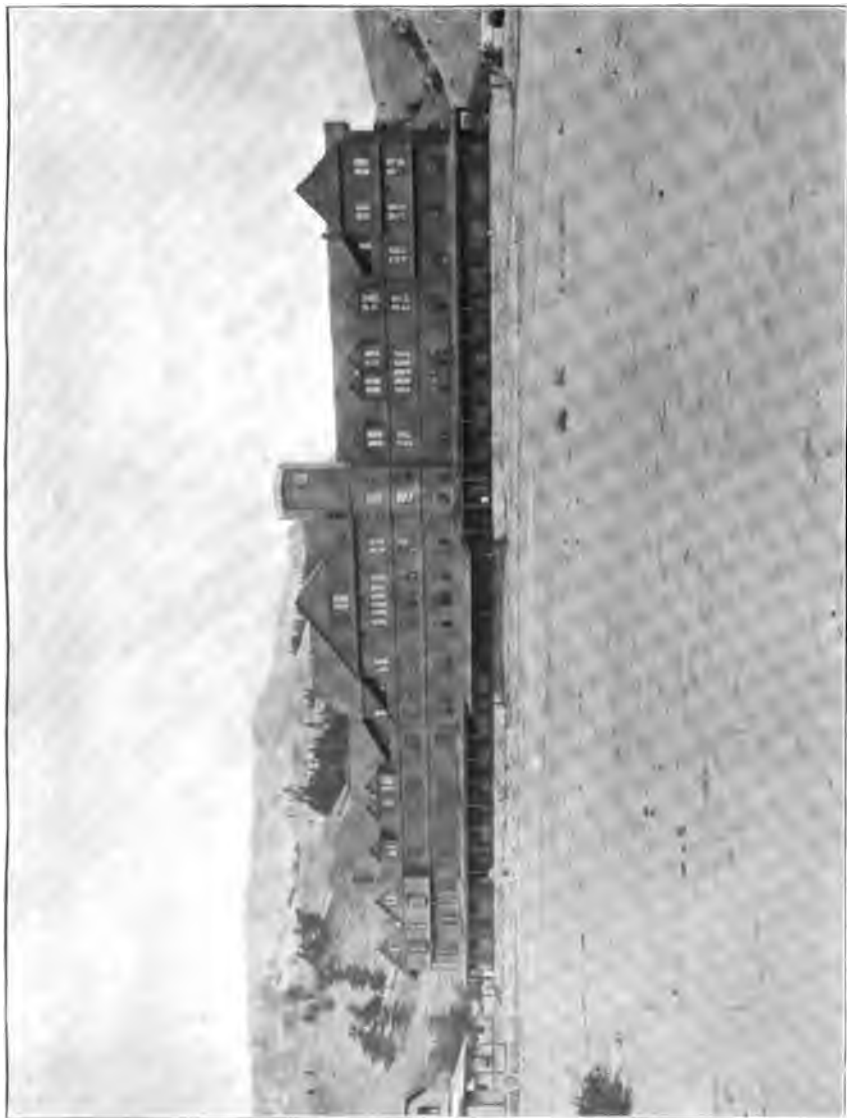
This new company, which commenced operations in 1898, and is known as the Monida and Yellowstone Stage Company, is also well equipped with fine Concord coaches and surreys and has given entire satisfaction to its patrons. Their business has shown a slight increase each year, and it will probably be much greater when a proposed branch of the Oregon Short Line Railroad is completed to a point near the border of the park. This company has also operated in perfect harmony with the Yellowstone Park Association hotels, and there has been no distinction shown between the patrons of the two regular transportation companies. No complaints have been received concerning this company.

HOTELS.

The Yellowstone Park Association has done much during the past season to improve the hotels throughout the park, and are still going on with their good work. Their task is by no means an easy one, and much consideration should be shown them, for all of their hotels, with the exception of the Mammoth, are located a long distance from the railroads. This necessitates the use of wagon transportation for supplies of all kinds, and under the best conditions this is a slow and expensive business.

THE MAMMOTH HOT SPRINGS HOTEL.

Much time and money have been expended in improving the exterior appearance and modernizing the interior of this structure. The exterior has been neatly painted a terra-cotta color with brown trimmings,



MAMMOTH HOT SPRINGS HOTEL.

Report Superintendent Yellowstone National Park, 1901.



MAMMOTH HOT SPRINGS HOTEL, SHOWING NEW VERANDAS.



Report Superintendent Yellowstone National Park, 1901.

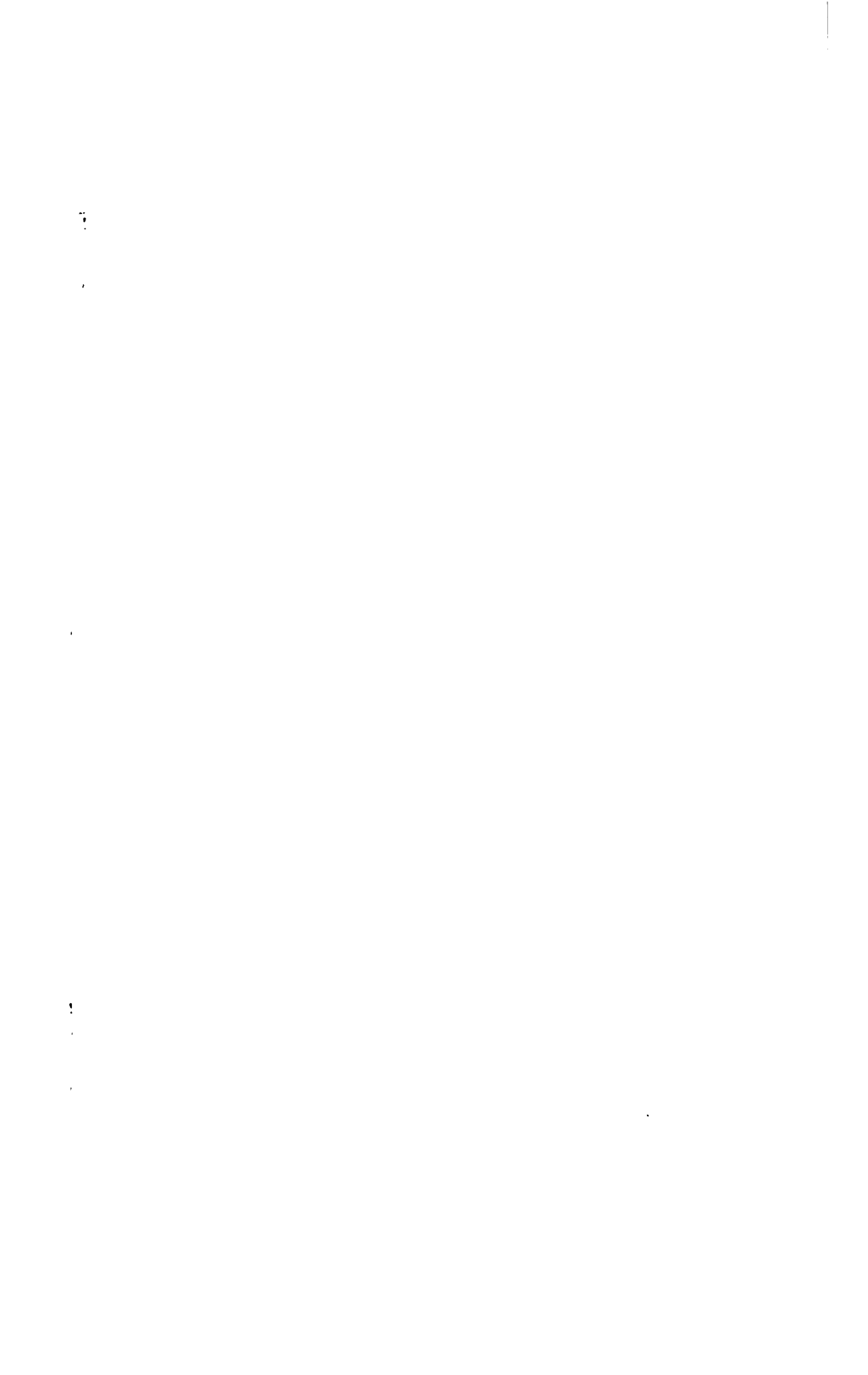


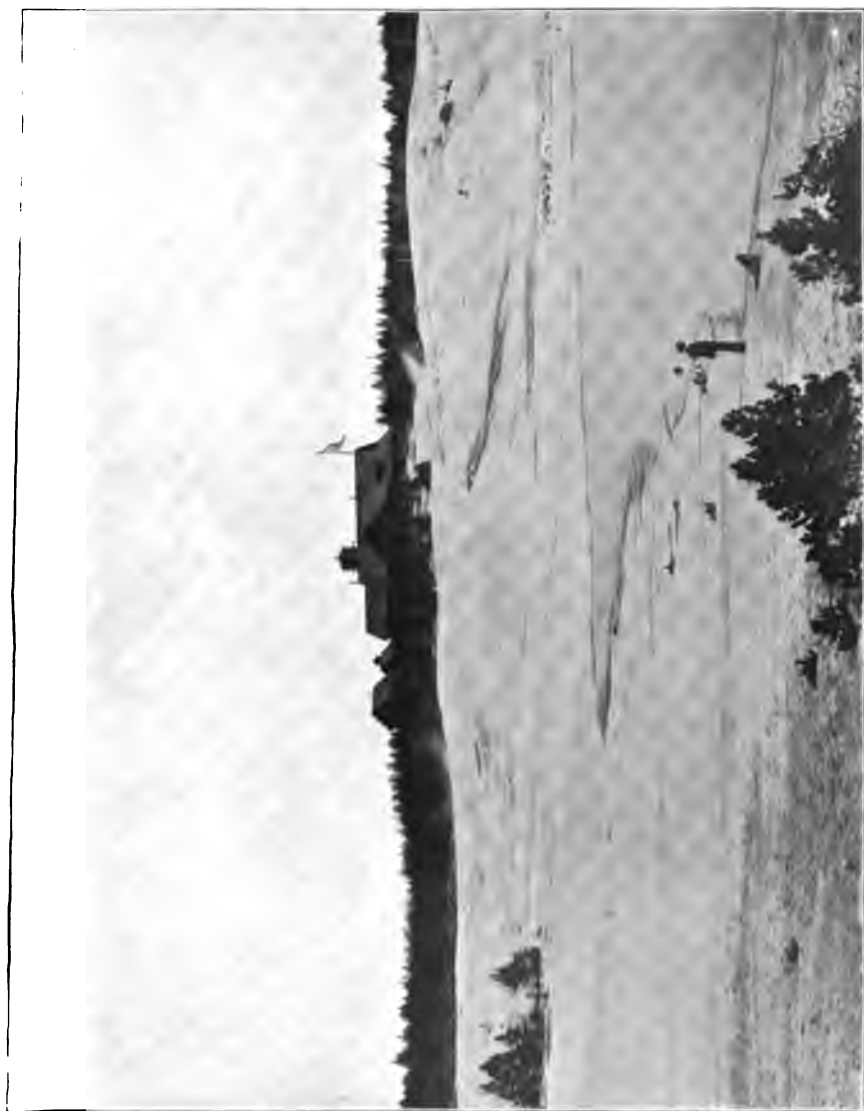
MAMMOTH HOT SPRINGS HOTEL OFFICE.

Report Superintendent Yellowstone National Park, 1901.

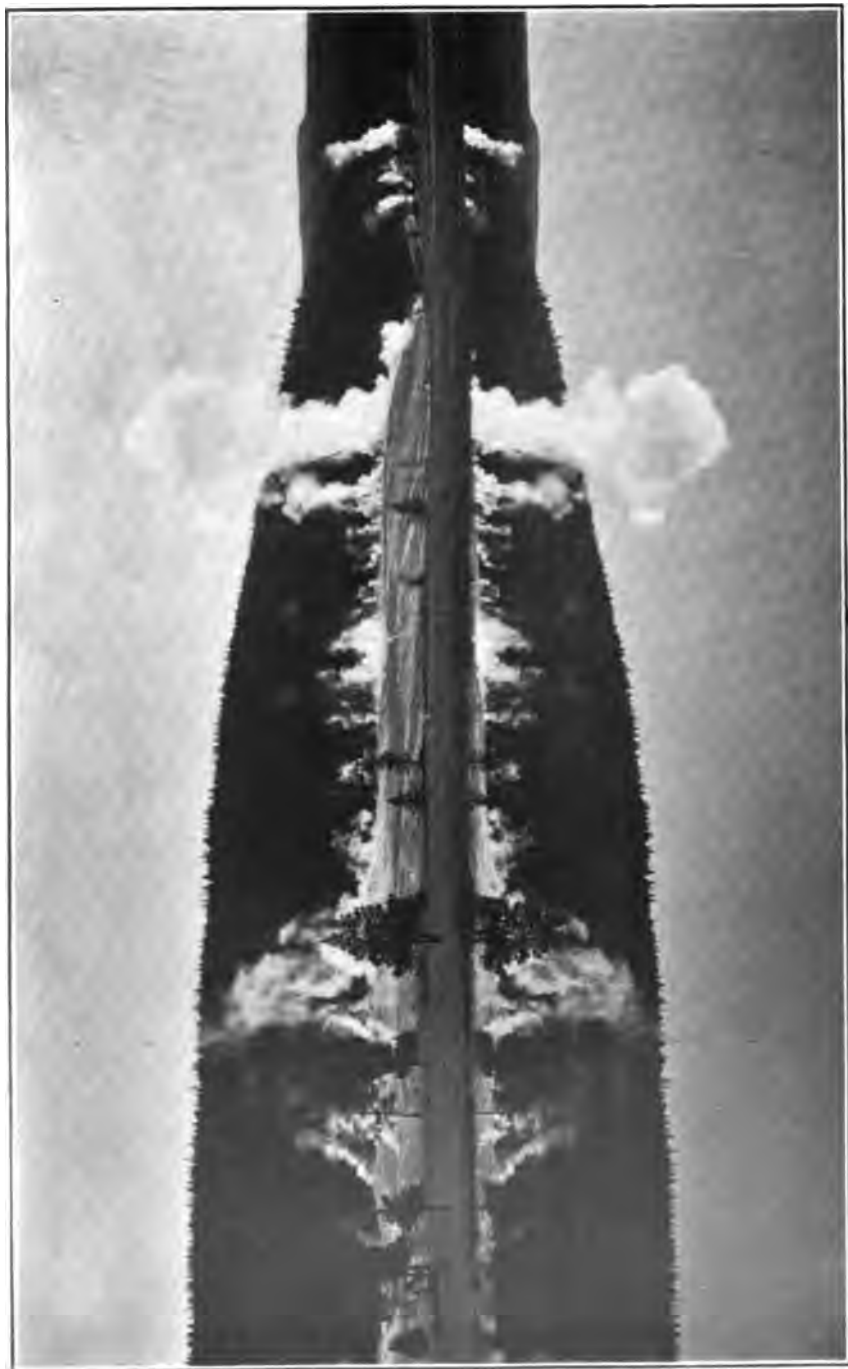


MAMMOTH HOT SPRINGS HOTEL LOBBY.





NEW HOTEL AT NORRIS, GEYSER BASIN.



UPPER GEYSER BASIN.



FOUNTAIN HOTEL

Report Superintendent Yellowstone National Park, 1901.



BEARS NEAR FOUNTAIN HOTEL

Report Superintendent Yellowstone National Park, 1901.



LAKE HOTEL

report superintendent Yellowstone National Park, 1901.



CANON HOTEL

and a new porch and new covered loading platform, 75 feet long, which has been added, have entirely changed and greatly improved the appearance of the front of the house. Among the many interior improvements are noticed the new floors, the two new bathrooms on each floor, with porcelain-lined tubs and closets, the hotel office enlarged and handsomely decorated with heads of elk, deer, mountain sheep, and antelope, 200 new electric lights, and a new and modern steam-heating plant, with radiators in every room. This last improvement will be greatly appreciated by the tourists in the early and the latter part of the season, when they are liable to experience a few exceedingly cold days. Twenty-seven rooms have been added to this hotel for the accommodation of guests.

NORRIS GEYSER BASIN HOTEL.

A new and very comfortable little hotel has been constructed at the Norris Geyser Basin. It has been built on a far better site than that occupied by the old lunch station, which was some distance from the geyser basin—entirely too far for the majority of tourists to walk. The new hotel is so conveniently located that the tourists can now sit on its broad and sheltered veranda, after having their luncheon, and while awaiting the arrival of their coaches, they will be greatly interested in watching the playing of the geysers in the distance below them; or if they prefer to do so, they can stroll leisurely through the basin and await the arrival of their coaches at the Monarch Geyser, where comfortable seats and a shelter have been provided. This hotel has been greatly needed for a long time, and will be frequently patronized by people who can not afford the time to go entirely around the park, and also by many who wish to go out of the park by the Monida route.

FOUNTAIN HOTEL.

This is a very comfortable and quite a modern establishment. It is well lighted by electricity and heated with steam. The water which is used in the bathrooms comes from a large hot spring, and is strongly impregnated with borax, which renders it soft and delightful water to bathe in.

UPPER GEYSER BASIN.

The association is preparing to build a new hotel at this point. They have at present a frame building where meals are served, and a number of very comfortably arranged tents, where 96 tourists can be accommodated if they wish to remain over night. The tents are neatly floored, and comfortably warmed with stoves.

LAKE HOTEL.

This, like the Fountain Hotel, is a very comfortable and quite a modern structure, and during the past season has been one of the most popular places in the park. A number of people have spent a good part of the summer here, and were so much pleased with the place that they expressed their intention of returning again next year. This hotel has been improved by the addition of 17 new rooms during the past summer.

CANYON HOTEL.

This building is similar in character to the Lake and Fountain hotels and is very comfortable. It has been much improved in appearance by putting nine dormer windows in the roof, and by painting. Twenty-four new rooms have also been added. It can be still further improved in appearance and comfort by the addition of a larger veranda.

THE WYLIE PERMANENT CAMPS.

Mr. W. W. Wylie, of Bozeman, Mont., was licensed to conduct camping parties through the park during the past season, and authorized to occupy certain parcels of ground as permanent camps.

No complaints have been received concerning him save that some of his agents outside of the park have made false statements concerning the routes, etc., traveled by other regular transportation companies in the park. This report was received in such a way that no action could be taken in the matter, but an effort will be made to see that it does not occur again.

IMPROVEMENTS IN THE YELLOWSTONE NATIONAL PARK.

Attention is invited to the following letter from Capt. H. M. Chittenden, United States Engineers, in charge of improvements in the Yellowstone National Park; also to his memorandum showing the work accomplished under his direction during the season of 1901. It is strongly urged that the additional appropriations asked for by him may be secured if possible. The experiment in road sprinkling has been a decided success, and has added much to the comfort of tourists and kept that portion of the roads which were sprinkled in fine condition, for, in addition to keeping down the dust, the broad tires of sprinkling wagons acted as rollers and kept the roads perfectly smooth and free from ruts.

The small log buildings now used by the outposts should be made as neat and comfortable as possible, for the men who occupy them suffer many hardships, especially during the winter, when they are entirely cut off from the outside world for several months.

The improvements recommended about the Mammoth Hot Springs will also add greatly to the attractions of the park, but this matter has been previously referred to in my report.

The substantial and permanent character of the road work that can be done by Captain Chittenden, when he has sufficient funds at his disposal, is illustrated by the fine piece of road just completed between the town of Gardiner and the Golden Gate. A few photographs of the most difficult parts of this road are inclosed herewith.

IMPROVEMENT YELLOWSTONE NATIONAL PARK,
U. S. ENGINEER OFFICE,
Mammoth Hot Springs, Wyo., October 3, 1901.

CAPTAIN: Since the date of rendering my annual report for the last fiscal year, with estimates for the fiscal year ending June 30, 1903, and also for the entire work yet remaining to be done under the existing project, certain conditions have developed that make it important to increase somewhat the estimates as submitted. As it is now too late to do this in my annual report, and as it is important that this increase of the estimate shall come before Congress in some official way, I should think it would be advisable for you to make mention of it in your own report about to be

Report Superintendent Yellowstone National Park, 1901.



ERECTION OF GOLDEN GATE VIADUCT. GENERAL VIEW FROM UP THE CANYON.



Report Superintendent Yellowstone National Park. 1907.



ERECTION OF GOLDEN GATE VIADUCT. TOP VIEW OF COMPLETED WORK FOR ROAD ABOVE VIADUCT.

Report Superintendent Yellowstone National Park, 1901.



OLD VIADUCT GOLDEN GATE.

submitted. The following are the items which ought to be included in the final estimate for the work:

1. *Sprinkling*.—The experiments conducted during the past season of sprinkling a certain stretch of carefully built road has demonstrated the great value of extending this work over the main roads of about 150 miles. It will require one sprinkler and seven filling tanks to every 5 miles. This will cost at the least calculation the sum of \$30,000 and should be included in the estimates for permanent plant, which ought to be procured within the next three years.

2. *Buildings*.—For the use of your troops in patrolling the park; for the use of the Engineer Department when sending parties over the road system, and for the use of the officers of the Government when traveling on duty through the park the present station houses should be enlarged and improved, and certain additional ones should be built. The total number will be 12, and possibly 13, and will cost on the average, if properly built, \$2,000 each, including outhouses, and taking into consideration the great distance to which much of the material will have to be hauled. There should be provided for this purpose the sum of \$25,000.

3. *Work at Mammoth Hot Springs*.—The completion of the new water supply for Fort Yellowstone and the bringing of the waters of Glen Creek to this point have made possible the irrigation of the Mammoth Hot Springs plateau and the conversion of this dusty tract of ground, where the main business of the park is conducted, into permanent turf. This improvement is very urgently needed. To complete it as it should be, and at the same time realign and thoroughly rebuild the roads of the plateau, with proper sidewalks, will cost about \$15,000.

The total estimate for these three purposes is therefore \$70,000.

Very respectfully,

H. M. CRITTENDEN,
Captain, Corps of Engineers, U. S. A.

Capt. JOHN PITCHEE,
*First U. S. Cavalry, Acting Superintendent Yellowstone National Park,
Fort Yellowstone, Wyo.*

WORK ACCOMPLISHED DURING SEASON OF 1901.

New road opened in valley of Gardiner, replacing dangerous road under cliff. Includes three steel bridges.

About 1,600 feet of new road built on hill below Mammoth Hot Springs, replacing a 15 per cent grade with one of 8 per cent.

A single-track surrey road opened from Glen Creek to Middle Gardiner Falls, 2 miles.

One-fourth mile of very difficult construction in upper end of Golden Gate Canyon.

Entire length of road from Mammoth Hot Springs to Golden Gate resurfaced. Same stretch of road sprinkled throughout the season.

Water supply for Mammoth Hot Springs put in, including the construction of a ditch to carry the water of Glen Creek to Mammoth Hot Springs, the construction of a reservoir holding 1,800,000 gallons, and the laying of a pipe line to connect with the points where supply is to be used.

The construction of about 7 miles of road near Yancey's, the grading of bridge approaches over the Yellowstone, and the survey of the proposed line as far as Tower Falls and through Granite Canyon on the road to Cooke City. The erection of the Yellowstone bridge has been prevented by failure of the mills to furnish the material, owing to the steel strike.

The construction of 9 miles of road between the Thumb and Lake Hotel to cut out the Lake Shore road.

Construction of 12 miles of road on the eastern approach, carrying that road into the valley of Middle Creek beyond Sylvan Pass. This work includes the construction of new pile bridges over Yellowstone River and Pelican Creek.

The opening of 6 miles of road near Jackson Lakes and the extensive reconstruction of the southern approach, including new bridges over Lewis River and Crawfish Creek, placing this road in very fair condition from Yellowstone Lake to Buffalo Fork of Snake River, the western terminus of the Fort Washakie military road.

The annual repairs have been extensive and have covered the entire existing system. The roads were all open by the 1st of June, something never before accomplished since the main circuit of the roads was opened. Extensive resurfacing has been done near Norris, in the Lower Geyser Basin and, on the Continental Divide road. About 200,000 feet of lumber has been manufactured both for new work and the repairs of old bridges. The station houses throughout the park have been placed in repair, temporarily.

RULES AND REGULATIONS OF PARK.

Attention is invited to the following letter from Judge John W. Meldrum, United States commissioner for the Yellowstone National Park.

The changes in the rules and regulations of the park suggested by him are approved and recommended, except that instead of "striking out the last subdivision from the last sentence of rule 4" the following be substituted therefor: "And anyone failing to comply therewith shall be punished as prescribed by law." This is provided for in paragraph 11, but it is desirable that the attention of all persons coming into the park should be clearly called to the necessity of carefully extinguishing their fires, and that a punishment will certainly follow carelessness and failure to carry out the requirements of paragraph 4. An amended copy of the rules and regulations in accordance with the above suggestions is appended hereto.

RULES AND REGULATIONS OF THE YELLOWSTONE NATIONAL PARK.

DEPARTMENT OF THE INTERIOR,

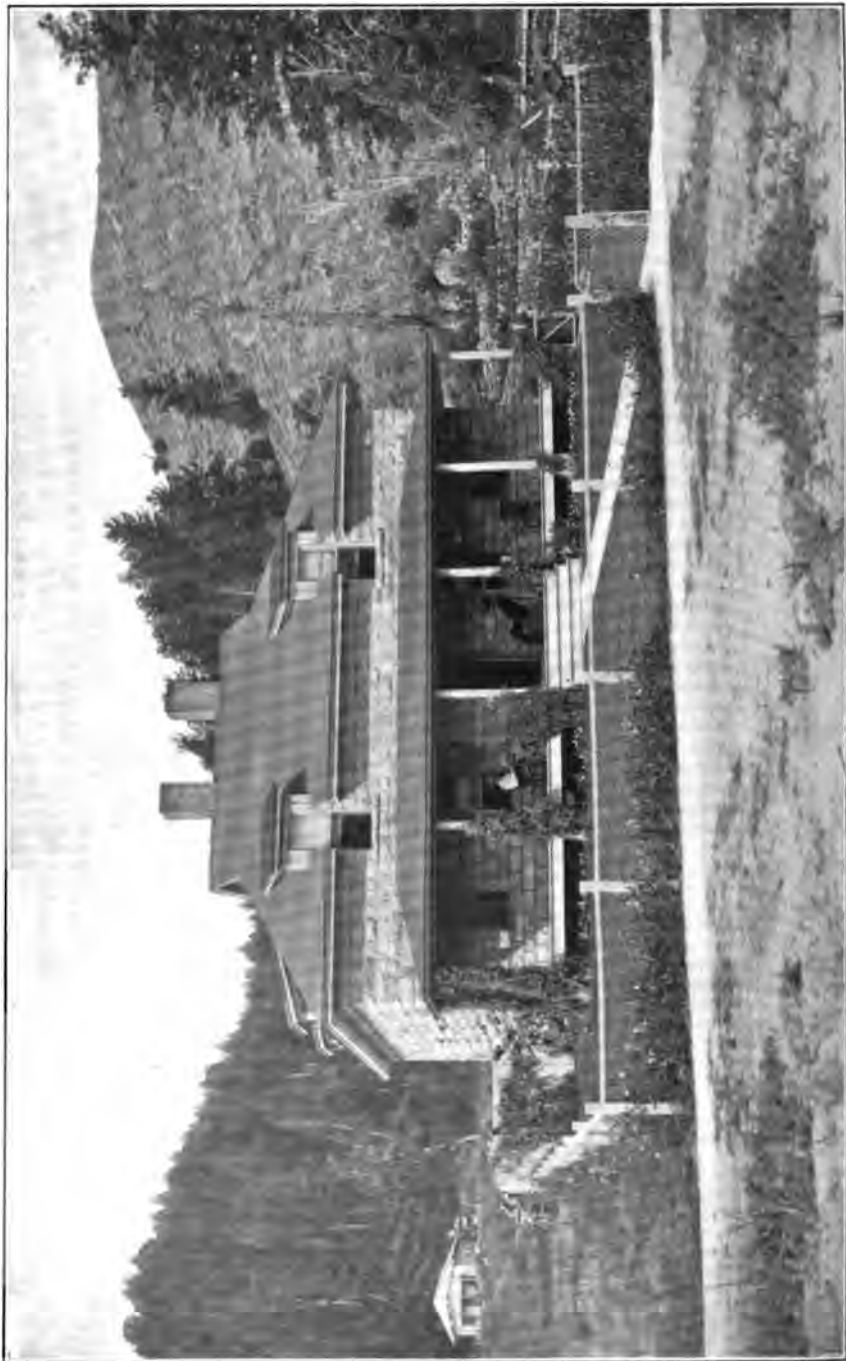
Washington, D. C., July 1, 1900.

The following rules and regulations for the government of the Yellowstone National Park are hereby established and made public pursuant to authority conferred by section 2475, Revised Statutes, United States, and the act of Congress approved May 7, 1894:

1. It is forbidden to remove or injure the sediments or incrustations around the geysers, hot springs, or steam vents; or to deface the same by written inscription or otherwise; or to throw any substance into the springs or geyser vents; or to injure or disturb, in any manner, or to carry off any of the mineral deposits, specimens, natural curiosities, or wonders within the park.
2. It is forbidden to ride or drive upon any of the geyser or hot spring formations, or to turn loose stock to graze in their vicinity.
3. It is forbidden to cut or injure any growing timber. Camping parties will be allowed to use dead or fallen timber for fuel.
4. Fires shall be lighted only when necessary, and completely extinguished when not longer required. The utmost care should be exercised at all times to avoid setting fire to the timber and grass, and any one failing to comply therewith shall be punished as prescribed by law.
5. Hunting or killing, wounding or capturing of any bird or wild animal, except dangerous animals, when necessary to prevent them from destroying life or inflicting an injury, is prohibited. The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed in the park under other circumstances than prescribed above, will be forfeited to the United States, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation, and the actual owner thereof was not a party to such violation. Firearms will only be permitted in the park on written permission from the superintendent thereof. On arrival at the first station of the park guard, parties having firearms will turn them over to the sergeant in charge of the station, taking his receipt for them. They will be returned to the owners on leaving the park.
6. Fishing with nets, seines, traps, or by the use of drugs or explosives, or in any other way than with hook and line, is prohibited. Fishing for the purposes of merchandise or profit is forbidden by law. Fishing may be prohibited by order of the superintendent of the park in any of the waters of the park, or limited therein to any specified season of the year, until otherwise ordered by the Secretary of the Interior.
7. No person will be permitted to reside permanently or to engage in any business in the park without permission, in writing, from the Department of the Interior. The superintendent may grant authority to competent persons to act as guides and revoke the same in his discretion, and no pack trains shall be allowed in the park unless in charge of a duly registered guide.



Report Superintendent Yellowstone National Park. 1901.



UNITED STATES COMMISSIONER'S BUILDING, YELLOWSTONE PARK.

8. The herding or grazing of loose stock or cattle of any kind within the park, as well as the driving of such stock or cattle over the roads of the park, is strictly forbidden, except in such cases where authority therefor is granted by the Secretary of the Interior.

9. No drinking saloon or bar room will be permitted within the limits of the park.

10. Private notices or advertisements shall not be posted or displayed within the park, except such as may be necessary for the convenience and guidance of the public, upon buildings on leased grounds.

11. Persons who render themselves obnoxious by disorderly conduct or bad behavior, or who violate any of the foregoing rules, may be summarily removed from the park, and will not be allowed to return without permission, in writing, from the Secretary of the Interior or the superintendent of the park.

Any person who violates any of the foregoing regulations will be deemed guilty of a misdemeanor, and be subjected to a fine, as provided by the act of Congress approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park and to punish crimes in said park, and for other purposes," of not more than one thousand dollars, or imprisonment not exceeding two years, or both, and be adjudged to pay all costs of the proceedings.

E. A. HITCHCOCK,
Secretary of the Interior.

UNITED STATES COMMISSIONER,
YELLOWSTONE NATIONAL PARK, DISTRICT OF WYOMING,
Mammoth Hot Springs, October 4, 1901.

SIR: Complying with your request of recent date, I have the honor to inclose herewith a statement of cases tried before me since the 30th day of September, 1900, to the date hereof. In submitting such statement, I deem it a fact worthy of mention that during this time no complaint has been entered against any person for killing large game in the park, and that but one complaint charges the violation of the Yellowstone National Park protective act to as great an extent as the trapping of two beaver.

I beg leave to suggest that when submitting your annual report to the honorable Secretary of the Interior, you will recommend the following changes in the rules and regulations promulgated by that officer with reference to the management and care of Yellowstone National Park: Strike out the last subdivision from the last sentence of rule 4, which reads as follows: "And anyone failing to comply therewith shall be peremptorily removed from the park." In rule 11, change the twentieth word from "will" to "may," so that the section will read, "persons who render themselves obnoxious by disorderly conduct or bad behavior, or who violate any of the foregoing rules 'may' be summarily removed from the park."

I suggest these changes for the reason that the act of Congress, approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park, and to punish crimes in said park, and for other purposes," specifically provides for the punishment of all persons who violate any provisions of said act, or any rule or regulation that may be promulgated by the Secretary of the Interior with reference to the management and care of the park. And, further, that a strict enforcement of rule 11, in all cases, would do injustice to persons who have complied with the judgment of the commissioner for inadvertently violating the provisions of the act of Congress herein before mentioned, or the said rules and regulations of the Secretary of the Interior.

Very respectfully,

JOHN W. MELDRUM,
United States Commissioner.

JOHN PITCHER,
*Captain, First United States Cavalry,
Acting Superintendent Yellowstone National Park,
Mammoth Hot Springs, Wyo.*

1900.

Nov. 12. *United States v. Edward Barnes.* Charge, larceny. Defendant held to district court.

Nov. 14. *United States v. Joseph Dalton, Horace Lattin, and David Davis.* Charge, violation of Yellowstone Park protective act. Defendants fined \$5 each and costs.

- Nov. 17. *United States v. Clyde L. Gillam and Edward Robinson.* Charge, violation of Yellowstone Park protective act. Defendants fined \$10 each and costs.
- Nov. 27. *United States v. John Mikolis and Antone Kaveick.* Charge, violation of Yellowstone Park protective act. Defendant Mikolis sentenced to ten days imprisonment and to pay one-half of the costs in case. Defendant Kaveick fined \$10 and one-half of the costs in case.
- Dec. 5. *United States v. Otto Stegelmeier and James C. Nedrow.* Charge, violation Yellowstone Park protective act. Defendants fined \$10 each and costs.
- Dec. 27. *United States v. Joseph Smith and Mike Comschar.* Charge, violation of Yellowstone Park protective act. Defendants fined \$10 each and costs.

1901.

- Apr. 29. *United States v. Henry H. Meyer.* Charge, violation of Yellowstone Park protective act. Defendant not found within jurisdiction of the commissioner.
- July 20. *United States v. William L. Holt and Michael Burns.* Charge, larceny. Defendants not apprehended.
- Aug. 3. *United States v. Charles Mitchell.* Charge, assault. Defendant fined \$10 and costs.
- Aug. 3. *United States v. John Baegle.* Charge, violation of Yellowstone Park protective act. Defendant fined \$50 and costs.
- Aug. 28. *United States v. Thomas Reardon.* Charge, larceny. Defendant held to district court.
- Sept. 6. *United States v. William Blevins.* Charge, violation of Yellowstone Park protective act. Defendant fined \$10 and costs.

TOURIST TRAVEL THROUGH THE PARK.

The aggregate number of persons carried through the park over the regular route during the season of 1901 is as follows:

Carried by Yellowstone National Park Transportation Company, entering via northern entrance of park	3,468
Carried by Messrs. Humphrey & Haynes, entering via western entrance of park	509
Others at hotels, traveling with private transportation, bicyclers, etc..	494
Total	4,471
Carried by W. W. Wylie and accommodated at his permanent camps.	1,371
Carried by other licensees of personally conducted camping parties ...	815
Total number camping, traveling with licensed transportation	2,186
Total number of tourists traveling through the park with private transportation as "camping parties"	4,112
Grand total of all visitors to the park, season 1901	10,769

During the season 3,378 tourists took the trip across Yellowstone Lake with the Yellowstone Lake Boat Company. Of this number 1,702 entered the park with the Yellowstone National Park Transportation Company, 141 with Messrs. Humphrey & Haynes, 1,370 with W. W. Wylie, and the balance, 165 people, were campers.

Very respectfully,

JNO. PITCHER,

Captain, First Cavalry, Acting Superintendent.

The SECRETARY OF THE INTERIOR.

Meteorological report.

SEPTEMBER, 1900.						OCTOBER, 1900.							
Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.
1.....	71	50	21	NW.	.....		1....	53	32	21	SW.	0.85	Snow.
2.....	75	31	44	NW.	.....		2....	54	32	22	SW.	.02	Rain.
3.....	80	40	40	SW.	0.10	Rain.	3....	63	34	29	S.	.....
4.....	60	50	10	NW.	.25	Rain.	4....	59	37	22	E.	.07	Snow.
5.....	73	45	28	SW.	.....		5....	53	37	16	W.	.18	Snow.
6.....	78	41	37	SW.	.....		6....	40	29	11	SE.	.....
7.....	82	40	42	SW.	.....		7....	51	37	14	SW.	.....
8.....	78	45	33	S.	.....		8....	59	27	32	SE.	.....
9.....	75	43	32	SW.	.....		9....	62	30	32	SW.	.....
10.....	71	39	32	W.	.....		10....	62	32	30	W.	.....
11.....	72	42	30	NW.	.075	Rain.	11....	65	30	35	SW.	.....
12.....	73	37	36	SW.	.....		12....	62	32	30	SW.	.....
13.....	73	39	34	SW.	.....		13....	61	42	19	SE.	.....
14.....	63	44	19	SW.	.....		14....	65	34	31	SW.	.....
15.....	60	37	23	NW.	.....		15....	62	31	31	SW.	.....
16.....	64	35	29	SW.	.....		16....	67	32	35	SW.	.....
17.....	57	35	22	NW.	.10	Rain.	17....	66	33	33	S.	.....
18.....	45	32	13	N.	.20	Rain.	18....	61	36	25	S.	Trace	Rain.
19.....	58	35	23	NW.	.....		19....	50	40	10	SW.	.1	Snow.
20.....	62	32	30	NW.	.....		20....	45	37	8	SW.	.....
21.....	59	33	26	N.	.....		21....	50	29	21	S.	.....
22.....	65	31	34	SW.	.....		22....	49	40	9	S.	.10	Snow.
23.....	65	48	17	SW.	.....		23....	50	22	28	SW.	.....
24.....	49	29	20	N.	.....		24....	42	27	15	SW.	.....
25.....	31	20	11	N.	.....		25....	44	22	22	SE.	.....
26.....	42	12	30	N.	.....		26....	46	30	16	SE.	.10	Snow.
27.....	54	17	37	N.	.....		27....	46	28	18	SE.	.....
28.....	59	35	24	NW.	.....		28....	51	28	23	SW.	Trace	Rain.
29.....	61	36	25	SW.	.14	Rain.	29....	42	37	5	NW.	.....
30.....	57	32	25	SW.	.....		30....	34	18	16	SW.	Trace	Rain.
							31....	34	22	12	SW.	Trace	Rain.
Total	1,912	1,065	827	.....	.865		Total	1,648	977	671	.....	1.22	
Mean	63.74	36.17	27.57	SW.	.....		Mean	53.16	31.51	21.65	SW.	.....

Maximum, 82° on the 7th instant; minimum, 12° on the 26th instant; mean, 49.96°; total precipitation, 0.865 inch; prevailing winds, southwest.

Maximum, 67° on the 16th instant; minimum, 18° on the 30th instant; mean, 42.34°; total precipitation, 1.22 inches; prevailing winds, southwest.

Meteorological report—Continued.

NOVEMBER, 1900.						DECEMBER, 1900.							
Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Range.	Winds.	Precipitation.	Remarks.
1.....	41	21	20	SW.	.....		1....	34	24	10	N.	0.10	Snow.
2.....	45	28	17	S.	.....		2....	32	14	18	S.	.....
3.....	52	39	13	S.	.....		3....	33	24	9	S.	.....
4.....	54	34	20	S.	.....		4....	37	29	8	S.	.....
5.....	54	30	24	S.	.....		5....	40	30	10	SW.	.....
6.....	57	32	25	S.	.....		6....	41	32	9	SW.	.....
7.....	56	26	30	SE.	.....		7....	43	30	13	S.	.....
8.....	58	26	32	NW.	.....		8....	44	31	13	SW.	.....
9.....	51	28	23	NW.	.....		9....	38	17	21	N.	.....
10.....	41	13	28	W.	.....		10...	36	15	21	S.	.....
11.....	52	20	32	SW.	.....		11...	39	14	25	S.	.....
12.....	52	23	29	W.	.....		12...	35	16	19	S.	.....
13.....	54	34	20	SW.	.....		13...	33	21	12	SE.	.....
14.....	51	32	19	S.	.....		14...	38	20	18	SE.	.....
15.....	49	24	25	SW.	.....		15...	38	21	17	S.	.06	Snow.
16.....	47	35	12	S.	.....		16...	39	28	11	S.	.....
17.....	46	14	32	NW.	.....		17...	35	22	13	S.	.225	Snow.
18.....	10	1	9	NE.	0.62	Snow.	18...	31	18	13	S.	.....
19.....	5	-10	16	SW.	.10	Snow.	19...	38	18	20	S.	.....
20.....	-2	-12	10	N.	.20	Snow.	20...	38	31	7	S.	.10	Snow.
21.....	20	-11	31	S.	.10	Snow.	21...	38	28	10	NW.	.20	Snow.
22.....	25	-11	36	SE.	.10	Snow.	22...	30	19	11	SW.	.....
23.....	30	20	10	SW.	.05	Snow.	23...	20	-1	21	SW.	.....
24.....	28	13	15	S.	.....		24...	27	10	17	S.	.060	Snow.
25.....	32	18	14	S.	.....		25...	26	14	12	SW.	.060	Snow.
26.....	40	26	14	SW.	.....		26...	28	18	10	N.	.10	Snow.
27.....	34	15	19	SW.	.....		27...	24	12	12	NW.	.150	Snow.
28.....	32	9	23	S.	.....		28...	18	-5	23	NW.	.....
29.....	34	15	19	S.	.....		29...	20	10	10	NE.	.....
30.....	39	22	17	SW.	.....		30...	18	-9	27	N.	.150	Snow.
31.....					.....		31...	-4	-26	21	N.	.....
Total	1,182	554	628	.....	1.17		Total	987	526	461	.....	1.175	
Mean.	39.40	18.47	20.98	S	.....		Mean.	31.84	16.97	14.87	S.	.....

Maximum, 57° on the 6th instant; minimum, 12° on the 20th instant; mean, 28.94°; total precipitation, 1.17 inches; prevailing winds, south.

Maximum, 44° on the 8th instant; minimum, 25° on the 31st instant; mean, 24.41°; total precipitation, 1.175 inches; prevailing winds, south.

YELLOWSTONE NATIONAL PARK.

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Meteorological report—Continued.

JANUARY, 1901.						FEBRUARY, 1901.							
Date.	Maximum.	Minimum.	Mean.	Wind	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Mean.	Winds.	Precipitation.	Remarks.
1.....	7	-15	22	S.			1.....	12	-11	23	W.		
2.....	19	3	16	S.	0.050	Snow.	2.....	15	-11	26	W.		
3.....	27	16	11	S.	.150	Snow.	3.....	10	-3	13	SW.	0.025	Snow.
4.....	36	23	13	SE.	.050	Snow.	4.....	11	-10	21	S.	Trace	Rain.
5.....	34	29	5	SW.	.200	Snow.	5.....	26	-3	29	W.		
6.....	35	23	12	SW.	.200	Snow.	6.....	25	11	14	NW.		
7.....	35	20	15	N.	.900	Snow.	7.....	15	4	11	N.	Trace	Rain.
8.....	22	11	11	NW.	.125	Snow.	8.....	12	-8	20	S.	.050	Snow.
9.....	20	6	14	NW.	.050	Snow.	9.....	19	-15	34	S.		
10.....	13	-6	19	S.	.250	Snow.	10.....	27	10	17	S.		
11.....	18	3	15	S.	.050	Snow.	11.....	28	-1	29	W.		
12.....	30	15	15	SW.	.050	Snow.	12.....	35	4	31	SW.		
13.....	37	26	11	SW.	.075	Snow.	13.....	39	7	32	SW.		
14.....	38	31	7	SW.	.050	Snow.	14.....	35	21	14	S.	.025	Snow.
15.....	37	15	22	SW.	.025	Snow.	15.....	34	19	15	SW.		
16.....	31	18	13	SW.	.200	Snow.	16.....	40	29	11	S.	.025	Snow.
17.....	26	10	16	W.			17.....	38	18	20	S.	.175	Snow.
18.....	36	6	30	S.			18.....	24	5	19	S.		
19.....	41	12	29	SW.			19.....	22	10	12	S.	Trace	Rain.
20.....	37	19	18	S.			20.....	41	8	33	N.	.100	Snow.
21.....	35	11	24	S.			21.....	37	-10	27	W.	.050	Snow.
22.....	35	29	6	SW.	Trace	Snow.	22.....	21	-6	27	W.		
23.....	32	23	9	SW.	.025	Snow.	23.....	25	0	25	S.	.050	Snow.
24.....	30	17	13	SW.			24.....	36	20	16	SW.	.200	Snow.
25.....	30	12	18	S.			25.....	41	25	16	SW.	.025	Snow.
26.....	31	18	13	SW.	Trace	Snow.	26.....	38	25	13	SW.	Trace	Rain.
27.....	31	21	10	SW.	Trace	Snow.	27.....	42	32	10	S.	Trace	Rain.
28.....	31	11	20	S.			28.....	41	31	10	S.		
29.....	31	12	19	N.	.050	Snow.							
30.....	22	2	20	SW.			Total.	789	221	558		.725	
31.....	18	2	16	S.			Mean	28.18	7.89	20.29	S.		
Total.	905	423	482		2.275								
Mean.	29.19	13.64	15.55		SW.								

Maximum, 41° on the 19th instant; minimum, 15° on the 1st instant; mean, 21.42°; total precipitation, 2.275 inches; prevailing winds, southwest.

Maximum, 42° on the 27th instant; minimum, 10° on the 19th instant; mean, 18.04; total precipitation, 0.275 inches; prevailing winds, south.

Meteorological report—Continued.

MARCH, 1901.						APRIL, 1901.							
Date.	Maximum.	Minimum.	Mean.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Mean.	Winds.	Precipitation.	Remarks.
1.....	46	35	11	S.	.....		1.....	30	7	23	S.W.	Trace	Snow.
2.....	43	30	13	N.W.	.....		2.....	37	25	12	S.	0.15	Snow.
3.....	38	22	16	W.	Trace	Snow.	3.....	37	20	17	S.W.	.30	Snow.
4.....	29	1	28	S.	0.10	Snow.	4.....	31	15	16	S.	.13	Snow.
5.....	40	5	35	W.	.....		5.....	33	12	21	S.	.....
6.....	46	25	21	W.	.....		6.....	39	24	15	S.	.13	Snow.
7.....	39	27	12	N.W.	.35	Snow.	7.....	30	20	10	W.	.06	Snow.
8.....	34	22	12	N.W.	.....		8.....	29	15	14	N.W.	.01	Snow.
9.....	35	16	19	S.W.	Trace	Snow.	9.....	42	14	28	N.W.	.....
10.....	33	19	14	S.	.05	Snow.	10.....	44	23	21	N.W.	.....
11.....	35	26	9	S.	.20	Snow.	11.....	51	21	30	N.W.	.....
12.....	35	16	19	S.W.	.10	Snow.	12.....	51	27	24	N.W.	.....
13.....	35	15	20	W.	.....		13.....	44	25	19	N.W.	Trace	Snow.
14.....	44	16	28	S.W.	.....		14.....	46	25	21	S.	.....
15.....	49	13	36	S.W.	.....		15.....	29	20	9	N.	.01	S
16.....	48	19	29	S.W.	.....		16.....	33	10	23	N.W.	.....
17.....	43	28	15	N.	Trace	Snow.	17.....	45	25	20	S.	.....
18.....	32	13	19	W.	Trace	Snow.	18.....	49	25	24	S.	.....
19.....	34	13	20	W.	.075	Snow.	19.....	55	27	28	S.	.....
20.....	37	14	23	W.	.....		20.....	63	32	31	S.	.....
21.....	47	21	26	S.W.	.....		21.....	54	37	17	S.W.	.....
22.....	42	26	16	N.	.20	Snow.	22.....	64	25	39	S.W.	.....
23.....	29	15	14	N.W.	.10	Snow.	23.....	61	35	26	S.	.....
24.....	31	19	12	N.W.	Trace	Snow.	24.....	58	38	20	S.	.30	Rain.
25.....	35	13	22	N.W.	.....		25.....	56	31	21	S.	Trace	Rain.
26.....	30	23	7	N.W.	.25	Snow.	26.....	62	28	24	S.	Trace	Rain.
27.....	34	13	21	N.	.....		27.....	51	16	35	S.	.....
28.....	34	1	33	N.	Trace	Snow.	28.....	61	29	32	S.	.....
29.....	32	10	22	N.	.02	Snow.	29.....	61	38	23	S.	.....
30.....	33	4	29	S.W.	.....		30.....	70	38	32	S.	.....
31.....	33	13	20	S.E.	.01	Snow.							
Total.	1,155	534	621	.....	1,455		Total.	1,406	731	675	.....	1.08	
Mean.	37.26	17.23	20.03	S.W.	.....		Mean.	46.87	24.36	22.5	S.	.....

Maximum, 49° on the 15th instant; minimum, 1° on the 4th and 28th instants; mean, 27.25°; total precipitation, 1.455 inches; prevailing winds, southwest.

Maximum, 70° on the 30th instant; minimum, 7° on the 1st instant; mean, 35.62°; total precipitation, 1.08 inches; prevailing winds, south.

Meteorological report—Continued.

MAY, 1901.						JUNE, 1901.							
Date.	Maximum.	Minimum.	Mean.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Mean.	Winds.	Precipitation.	Remarks.
1.....	75	36	39	S.	.....		1.....	65	35	30	N.	.....
2.....	66	42	24	N.W.	0.40	Rain.	2.....	55	43	12	N.	0.06	Rain.
3.....	54	39	15	N.W.	.60	Rain.	3.....	59	35	24	S.	.20	Rain.
4.....	56	35	21	N.W.	.02	Rain.	4.....	46	26	20	N.	.400	Snow.
5.....	57	30	27	N.W.	.....		5.....	47	20	27	S.	.....
6.....	63	32	31	S.	.....		6.....	61	31	30	S.	.....
7.....	64	34	30	S.	.....		7.....	67	41	26	S.	.....
8.....	62	37	25	S.W.	.05	Rain.	8.....	62	36	26	N.	.15	Rain.
9.....	60	46	14	S.W.	Trace	Rain.	9.....	58	30	28	W.	.....
10.....	58	29	29	N.W.	.....		10.....	42	32	10	N.	Trace	Rain.
11.....	69	31	38	S.	.....		11.....	58	36	22	S.	.02	Rain.
12.....	69	42	27	N.W.	.05	Rain.	12.....	58	33	25	S.	.....
13.....	70	41	29	N.	.10	Rain.	13.....	54	38	16	S.	.02	Rain.
14.....	71	37	34	S.	.....		14.....	62	31	31	N.	.....
15.....	72	40	32	S.	.....		15.....	62	34	28	W.	.....
16.....	76	42	34	S.	.....		16.....	66	34	22	S.	.05	Rain.
17.....	78	46	32	S.	.....		17.....	65	49	16	S.	.02	Rain.
18.....	71	49	22	S.	.....		18.....	71	41	30	W.	.10	Rain.
19.....	68	48	20	S.	.....		19.....	70	43	27	N.	.02	Rain.
20.....	61	38	23	S.	Trace	Rain.	20.....	65	47	18	S.	.30	Rain.
21.....	60	42	18	N.W.	.60	Rain.	21.....	73	39	34	N.	.....
22.....	48	35	13	N.W.	.30	Rain.	22.....	76	43	33	S.	Trace	Rain.
23.....	58	32	26	N.W.	.....		23.....	73	46	27	W.	.....
24.....	61	40	21	N.W.	Trace	Rain.	24.....	68	38	30	W.	.....
25.....	71	35	36	N.W.	.....		25.....	69	46	23	N.	Trace	Rain.
26.....	73	42	31	S.	.10	Rain.	26.....	60	38	22	W.	.10	Rain.
27.....	75	43	32	S.	.05	Rain.	27.....	68	40	28	S.	.....
28.....	74	43	31	S.	.05	Rain.	28.....	70	48	22	S.	.....
29.....	68	44	24	S.	.....		29.....	73	42	31	W.	.....
30.....	64	41	23	N.	.20	Rain.	30.....	61	36	25	W.	.....
31.....	58	37	21	.....	.....						
Total.	2,030	1,208	822	.....	2.72		Total.	1,884	1,131	753	.....	1.43	
Mean.	65.49	38.97	26.52	S.	.....		Mean.	62.8	37.7	25.1	S.	.....

Maximum, 78° on the 17th instant; minimum, 29° on the 10th instant; mean, 52.23°; total precipitation, 2.72 inches; prevailing winds, south.

Maximum, 76° on the 22d instant; minimum, 20° on the 5th instant; mean, 49.53°; total precipitation, 1.43 inches; prevailing winds, south.

Meteorological report—Continued.

JULY, 1901.						AUGUST, 1901.							
Date.	Maximum.	Minimum.	Mean.	Winds.	Precipitation.	Remarks.	Date.	Maximum.	Minimum.	Mean.	Winds.	Precipitation.	Remarks.
1.	79	80	49	S.	.....		1.	88	57	31	NW.	0.30	Rain.
2.	81	54	27	SW.	.....		2.	72	52	20	N.	.50	Rain.
3.	78	51	27	W.	.....		3.	73	47	26	N.	.....
4.	67	39	28	W.	.....		4.	80	49	31	S.	.....
5.	78	41	37	SW.	.....		5.	86	48	38	W.	.....
6.	87	45	42	S.	.....		6.	79	57	22	N.	.....
7.	93	49	44	S.	.....		7.	83	51	32	SE.	.06	Rain.
8.	85	55	30	S.	Trace	Rain.	8.	77	54	23	N.	.06	Rain.
9.	83	52	31	NW.	0.30		9.	77	47	30	S.	.....
10.	85	49	36	S.	.....		10.	74	45	29	N.	.....
11.	86	53	33	S.	Trace	Rain.	11.	80	40	40	SW.	.....
12.	82	54	28	S.	.10	Rain.	12.	79	47	32	N.	.....
13.	84	39	35	S.	.125	Rain.	13.	82	44	38	N.	.....
14.	80	50	30	S.	.....		14.	82	48	34	S.	.....
15.	82	44	38	S.	.....		15.	88	47	30	SW.	.10	Rain.
16.	85	47	38	S.	.....		16.	82	52	30	W.	.06	Rain.
17.	89	51	38	S.	.....		17.	82	52	47	SW.	.....
18.	92	51	41	SW.	.....		18.	77	50	27	S.	.....
19.	90	52	38	SW.	.....		19.	68	55	13	N.	Trace	Rain.
20.	91	51	40	W.	.....		20.	60	49	11	N.	.60	Rain.
21.	93	52	41	S.	.....		21.	69	42	27	N.	Trace	Rain.
22.	92	55	37	SW.	.....		22.	79	43	36	S.	.....
23.	87	58	29	SW.	.30	Rain.	23.	84	43	41	S.	Trace	
24.	85	54	31	S.	.....		24.	84	50	34	S.	.....
25.	87	54	33	N.	Trace	Rain.	25.	85	45	40	S.	.....
26.	85	55	30	S.	.10	Rain.	26.	81	54	27	S.	.....
27.	82	51	31	S.	Trace	Rain.	27.	76	45	31	S.	.....
28.	79	48	31	N.	.....		28.	77	39	38	S.	.....
29.	85	41	44	N.	.....		29.	81	40	41	W.	.....
30.	91	47	44	N.	.....		30.	76	43	33	SE.	.....
31.	96	56	40	S.	.....		31.	77	43	34	S.	.....
Total.	2,639	1,538	1,101	.....	.80		Total.	2,438	1,473	965	.....	1.65	
Mean.	84.87	49.61	35.52	S.	.....		Mean.	78.64	47.51	31.13	S.	.....

Maximum, 96° on the 31st instant; minimum, 30° on the 1st instant; mean, 67.24°. Total precipitation, 0.80 inch; prevailing winds, south.

Maximum, 88° on the 1st and 15th instants; minimum, 39° on the 28th instant; mean, 63.8°. Total precipitation, 1.65 inches; prevailing winds, south.

INSTRUCTIONS TO PERSONS TRAVELING THROUGH YELLOWSTONE NATIONAL PARK.

DEPARTMENT OF THE INTERIOR,
OFFICE OF SUPERINTENDENT YELLOWSTONE NATIONAL PARK,
Mammoth Hot Springs, Wyo., July 1, 1900.

The following instructions for the information and guidance of parties traveling through the Yellowstone Park, having received the approval of the Secretary of the Interior, are published for the benefit of all concerned:

(1) *Fires.*—The greatest care must be exercised to insure the complete extinction of all camp fires before they are abandoned. All ashes and unburned bits of wood must, when practicable, be thoroughly soaked with water. Where fires are built in the neighborhood of decayed logs, particular attention must be directed to the extinguishment of fires in the decaying mold. Such material frequently smolders for days and then breaks out into dangerous conflagration. Fire may also be extinguished where water is not available by a complete covering of earth, well packed down.

(2) *Camps.*—No camp will be made at a less distance than 100 feet from any traveled road. Blankets, clothing, hammocks, or any other article liable to frighten teams must not be hung at a nearer distance than this to the road. The same rule applies to temporary stops, such as for feeding horses or for taking luncheon.

Camp grounds must be thoroughly cleaned before they are abandoned, and such articles as tin cans, bottles, cast-off clothing, and other debris must be either buried or taken to some place where they will not offend the sight.

(3) *Bicycles.*—Many of the horses driven in the park are unused to bicycles and liable to be frightened by them. The greatest care must, therefore, be exercised by their riders. In meeting teams, riders will always dismount and stand at the side of

the road—the lower side if the meeting be on a grade. In passing teams from the rear, riders will ring their bells as a warning and inquire of the driver if they may pass. If it appear from the answer that the team is liable to be frightened, they may ask the driver to halt his team and allow them to dismount and walk past.

Riders of bicycles are responsible for all damages caused by failure to properly observe these instructions.

(4) *Fishing.*—All fish less than 6 inches in length should at once be returned to the water with the least damage possible to the fish. No fish should be caught in excess of the number needed for food.

(5) *Dogs.*—When dogs are taken through the park they must be prevented from chasing the animals and birds or annoying passers-by. To this end they must be carried in the wagons or led behind them while traveling, and kept within the limits of the camps when halted. Any dog found at large in disregard of this section will be killed.

(6) *Grazing animals.*—Only animals actually in use for purposes of transportation through the park can be grazed in the vicinity of the camps. They will not be allowed to run over any of the formations, nor near to any of the geysers or hot springs; neither will they be allowed to run loose in the roads.

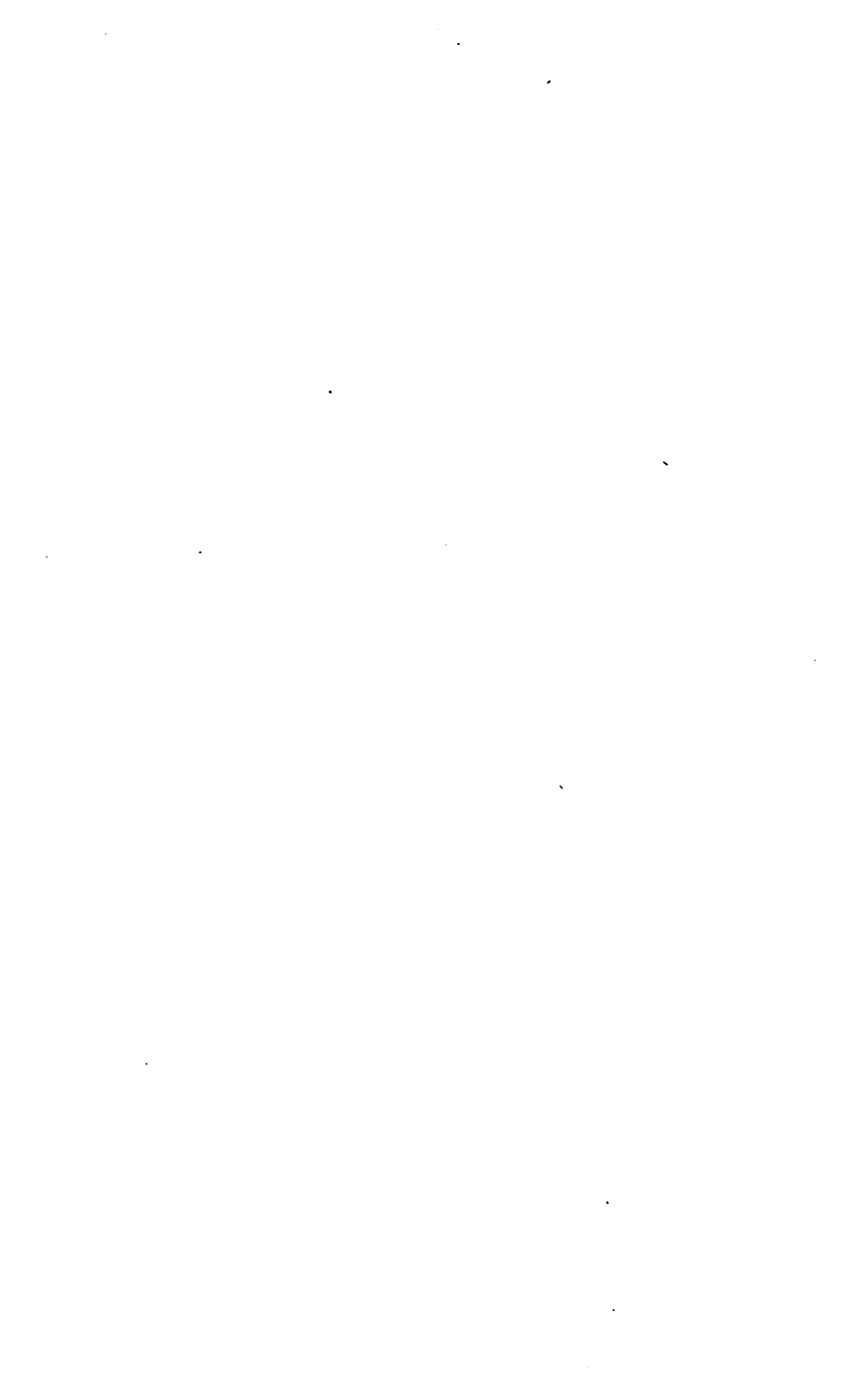
(7) *Miscellaneous.*—The carving or writing of names or other things on any of the mileposts or signboards, or any of the seats, railings, or other structures, or on the trees, will not be permitted.

Persons are not allowed to bathe near any of the regularly traveled roads in the park without suitable bathing clothes.

(8) Willful disregard of these instructions will result in the ejection of the offending person or persons from the park.

JNO. PITCHER,

Acting Superintendent of the Yellowstone National Park.



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R E P O R T
OF THE
ACTING SUPERINTENDENT OF THE YOSEMITE NATIONAL PARK.

DEPARTMENT OF THE INTERIOR,
OFFICE OF SUPERINTENDENT YOSEMITE NATIONAL PARK,
Wawona, Cal., October 10, 1901.

SIR: In compliance with your instructions of June 22, 1901, I have the honor to submit the following report of the condition of affairs in the Yosemite National Park, California.

Under orders from headquarters Department of California, I reported to you by letter and received instructions to be guided by instructions already given former superintendents and those contained in letters from your office from time to time.

I left the Presidio of San Francisco on June 3, 1901, with Troops H and I, Fifteenth Cavalry, having been instructed by the department commander to conduct the squadron to Maderia, Cal., where Troop I was detached for duty in the Sequoia Park, and I, with Troop H, proceeded to this place, arriving June 17, 1901.

Up to the present time patrols have been kept constantly on the move in different parts of the reservation looking for trespassers and hunters.

One drove of cattle (cows and calves) have been found trespassing on the reservation and driven off, and one large herd of sheep, with four herders in charge, were found in the park. The sheep were driven beyond the park limits and scattered, and the herders were ejected from the park.

I have had no trouble with the owners of patented lands, as they have all shown a disposition to live up to the rules and regulations of the park.

Game is very plentiful, and though a large number of firearms have been taken up by patrols and returned to the owners later, not an instance has been reported where tourists or campers have disregarded the regulations in this particular.

Guards have been kept at the principal entrances to the park at all times, thereby preventing any one, excepting those coming in over trails, from bringing in firearms.

There have been several fires in the park during the season, but owing to the vigilance of the men these have been extinguished with but little or no damage.

The contractor has nearly completed the bridge over Wet Gulch, and the work is progressing very rapidly on the other contracts let for the repair of trails, etc.

The aggregate amount of the cost of the construction and repair of roads, trails, and bridges (\$3,565) already contracted for is within the limits of the appropriation for the fiscal year ending June 30, 1902, and it is expected that all of the work will be completed before my departure this fall.

I would recommend that the following trails and roads be repaired, viz: Trail from head of Chilnualna Falls to Devils Post Pile, a distance of about 38 miles, to cost about \$1,500; for construction of trail from Clouds Rest trail to Lake Merced, a distance of about 5 miles, to cost about \$500; repair of trail from Til Till trail east side of Rancheria Creek to The Sink, a distance of about 10 miles, to cost about \$1,000; repair of trail from Poopino Valley to Lake Eleanor, a distance of about 9 miles, to cost about \$1,000; repair of trail from headwaters of San Joaquin River to head of Bloody Canyon, a distance of about 30 miles, to cost about \$2,500; repair of trail from Lake Tenya to White Cascades on Tuolumne River, a distance of about 9 miles, to cost about \$700; repair of trail from Lake Eleanor to Lake Vernon, a distance of about 11 miles, to cost about \$650; repair of trail from Lake Vernon to Til Till Valley, a distance of about 8 miles and to cost about \$600; for the construction of a bridge over Tuolumne River near Lambert Soda Springs, to cost about \$1,000, and to be constructed in such a way that the floor can be removed in the winter months to prevent being broken down by snow—it is not necessary for this bridge to be over 5 feet in width, as it can only be used by saddle and pack animals; for construction of a trail from Lake Ostrander to Crescent Lake, a distance of about 7 miles, to cost about \$900.

With the above improvements the reservation would be in very good condition for the troops and for visitors.

The estimated cost of the various trails and bridges is a rough one, and in some cases would be a little more or less, but on the whole I think that the amounts would cover the work.

Forest Rangers Leidig and Leonard have rendered very efficient service during the season and it is respectfully recommended that their salary be increased to \$100 per month, as they are compelled to keep horses and find it very expensive to do so, on account of being so far from the railroad, hay costing from \$40 to \$50 per ton and barley \$50 per ton. I have found them both to be very trustworthy men, and I believe them to be conscientious in the performance of their duties.

Through the liberality of the Quartermaster's Department, I have been enabled to make the command very comfortable in this camp.

The Quartermaster's Department has constructed a good shed for the horses, and they will be well provided for during the cold and wet weather, which will probably commence soon.

There have been 9,000 visitors in the park this season, about two-thirds of whom were campers.

It is respectfully recommended that stricter regulations be issued by the Department regarding the presence of campers visiting the park, or that the acting superintendent be authorized in his judgment to issue passes to such persons, and where the rules are violated he may eject them from the park. I have information from Forester Leidig that he found good evidence of this class of people having used dynamite

or similar high explosive in the Bridal Veil Creek to kill trout. He did not apprehend the parties, but his statement taken in connection with the fact that every fire that has occurred this summer within the limits of the park or those outside, some of which have been very disastrous, has been caused by this indifference, carelessness, and, it is believed in some instances, by the criminal acts of campers.

Attention is also respectfully invited to my reports regarding the divergence of water tributary to the south fork of the Merced River.

Woodsmen Leidig and Leonard should be authorized to destroy by fire during the winter months parts of fallen timber, when it could be safely done. By reason of their long experience, I believe this matter could be safely left in their hands, to the end that during the long and excessively dry seasons, such as the present one has been, the danger of serious fires during the summer season would be greatly reduced.

I inclose a paper, marked "A," which is an extract furnished me of a petition of property owners, which will probably reach the Department in due time. After due consideration, based upon the best evidence I have been able to obtain, I can see no objection to property owners and those holding leased land within the park limits grazing cattle near their own premises under the supervision of the park authorities. This, however, with the understanding that such indulgence should not be granted except from the period from August 1 to October 1, and every case the owners of cattle to obtain permits from the acting superintendent, clearly showing the number of cattle, brands, marks, etc., and defining the limits of authorized ranges, which will under no circumstances include the meadow lands within the park. A violation of any part of the permit should cause its immediate cancellation.

I also inclose herewith a map by Lieut. J. I. McMullen.

Respectfully submitted.

L. A. CRAIG,

Major, Fifteenth Cavalry, Acting Superintendent.

The SECRETARY OF THE INTERIOR,

Washington, D. C.

EXTRACT.

* * * * *
 Those people who have hereto grazed cattle and horses in the park in nearly every instance own lands under patent, * * * varying from one-quarter section upward, * * * and they enter upon their lands generally in April or May and remain until about October 15, when they return to their valley ranches, * * * the cattle and horses while in the park, * * * graze within given confines, such as mountain ridges or rivers. * * * The patented lands * * * are used by the owners for the purpose of holding their stock during usually the * * * month of October, while the "round-up" is in progress. * * * The riders return each evening to their respective homes, or to other neighbors, and do not, therefore, have any occasion to make camp fires. * * *

* * * The different owners have * * * on their ranges * * * places where salt is placed for stock, and those animals travel from various directions, often several miles, for salt, and in so doing beat trails from said points, and in case of forest fires these trails check fires and serve as starting points to "back fire" when necessary. * * *

It is well known that during the many years prior to the establishing of the park fires were less frequent than at the present time. * * * The cattle and horses

ate down, to a considerable extent, the grass and underbrush, thus leaving no great quantity of substance for fire, while without their presence this undergrowth is so rank * * * that it becomes impossible to check the fire when once under headway. This is well established, as the fire within the park in 1899 burned for over two months and destroyed thousands of acres of timber and forest growth, and no parallel instance has been known in all the years the mountains were occupied before the park was established. The undergrowth is now becoming so thick that in the spring season, as the sap therein begins to rise in the trees or shrubs, it creates a heat that melts the snow earlier than where there is no timber, consequently the more dense the timber and undergrowth is the less beneficial is it in conserving the snow; and it may also be noted that game is becoming scarcer in the park each year, which fact may be attributed to the lack of sustenance for the wild animals therein, thereby resulting in the destruction of birds' eggs and young deer, while heretofore death among horses and cattle contributed largely toward the foods of the forest animals.

If cattle and horses were permitted to be grazed within the park under such conditions and restrictions as are placed upon persons who graze their stock within the forest reserve, the park and its natural conditions would be better preserved.



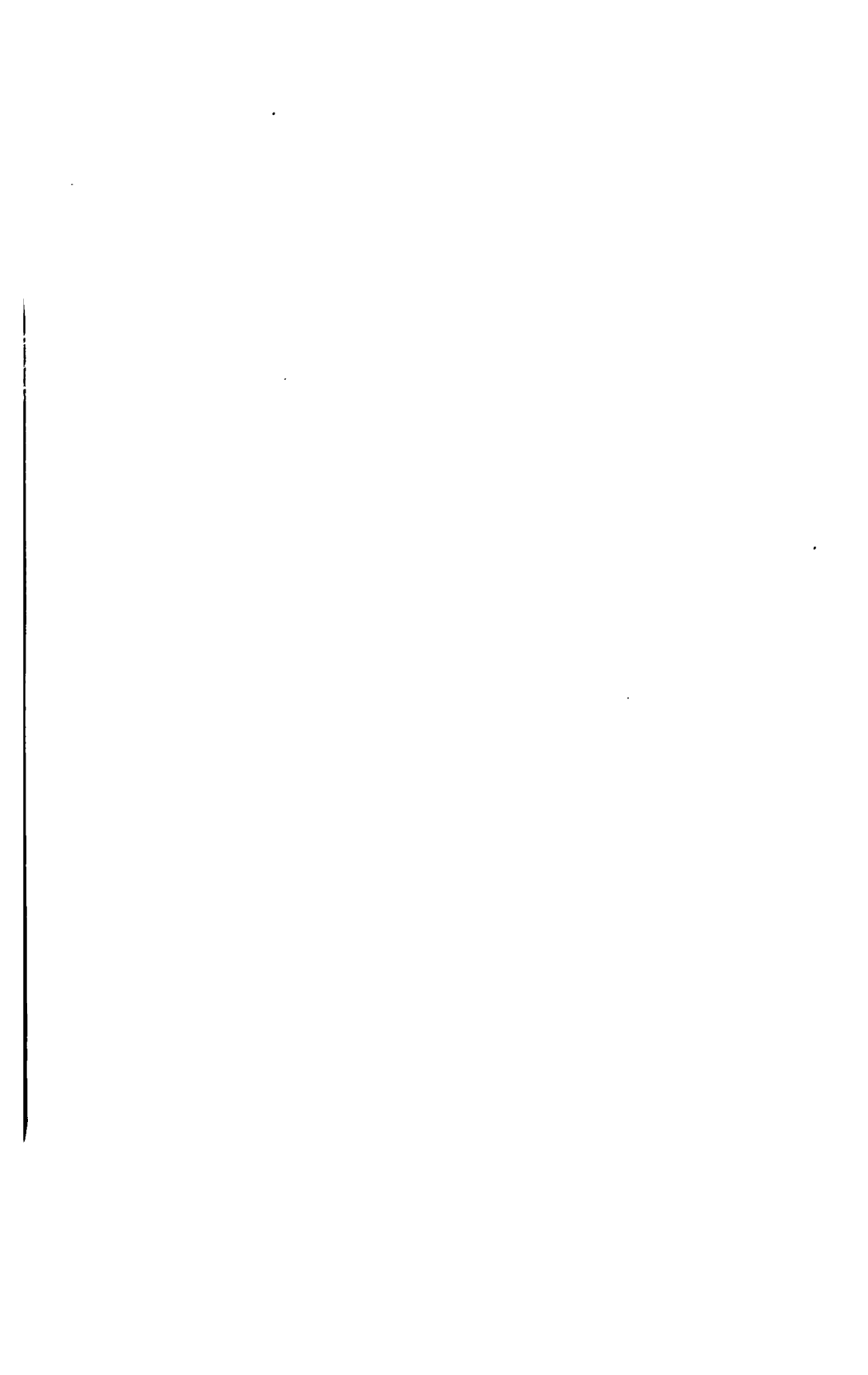


1076. Acting supt. Sequoia and Gen. Grant National Parks, 1901.



A.P. VANCE

GENERAL GRANT TREE



Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



GENERAL WASHINGTON TREE.

Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



THEODORE ROOSEVELT TREE.



GENERAL SHERMAN TREE.

REPORT

OF THE

ACTING SUPERINTENDENT OF THE SEQUOIA AND GENERAL GRANT
NATIONAL PARKS, CALIFORNIA.

OFFICE OF THE ACTING SUPERINTENDENT,
SEQUOIA AND GENERAL GRANT NATIONAL PARKS.

Kaweah, Cal., October 13, 1901.

SIR: I have the honor to report as follows on the conditions obtaining in the Sequoia and General Grant national parks during the present season of 1901.

Troop I, Fifteenth Cavalry, was directed to march from the Presidio, San Francisco, Cal., on June 3, 1901, and act as guard for these parks. The command arrived and went into camp at Kaweah, on the Hopping range, on June 19.

Reconnoissances of trails and detachment camp sites were made as rapidly as possible, and one detail sent under Park Ranger Britten to open up the South Fork trail to Hocketts Meadows. It was desired to make the main camp as near as possible to the work on the Giant Forest road, and after personal inspection I selected the bluff overlooking Old Colony Mill and the canyons of the Kaweah and East Branch of the North Fork. This is a beautiful camp site, except that water has to be hauled from the spring at Old Colony Mill, about 500 feet below.

The detachments were established July 1, a large one at Hocketts Meadows and one each at Weishers Mill, Halstead Meadows, and the General Grant Park. A fifth detachment was then left in charge of the supply camp at Kaweah, and on July 9 the main camp was established in the mountains.

These detachments by diligent patrolling have been able to keep most of the park under close observation, and weekly reports of each have kept me informed of conditions. The detachment commanders were kept permanently throughout the season and the men changed as circumstances made advisable.

A target range was constructed by soldier detail at Halstead Meadows, having two targets in the butt, and all ranges to include 1,000 yards. These, however, were over wet, overflowed ground, and the range itself being in a narrow canyon the light was poor at best, while evaporation made it worse. The water also made it impracticable to have any skirmish running. The whole troop had practice to include 600 yards, but I can not recommend the range to my successors. When the troop can camp within practicable distance, Crescent Meadow, or Long Meadow, if drained, should make a fair target range.

CAMP SITES.

The main camp should be as near the Giant Forest as practicable, and perhaps within it when the road is completed. The extension of the road now makes it practicable to camp next season at the Marble, where very desirable sites will be found, lacking only an outlook to equal the one above Old Colony Mill. As soon as the road opens up the Giant Forest a permanent camp site should be selected and suitable buildings erected for the accommodation of the troops; at least a kitchen, bake oven, and storehouses. In the forest these could be readily constructed by soldier labor. The same are needed at the supply camp at Kaweah. Here the site is necessarily on private property, and the Government is thus dependent on private good will for camping privileges. A permanent site should be secured and buildings erected.

GIANT FOREST ROAD.

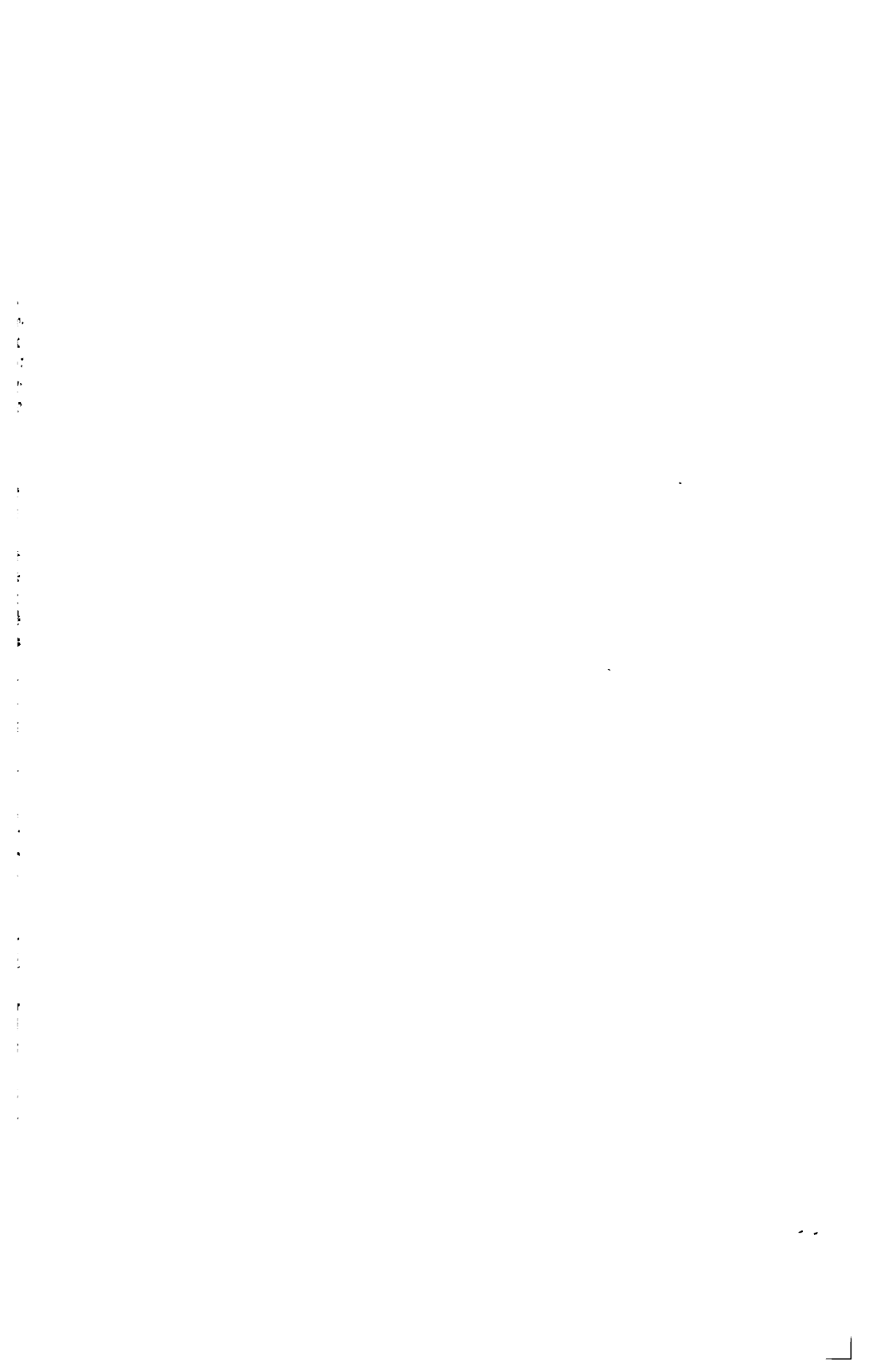
-The first point of interest in the park is the Giant Forest of Sequoias. To make this accessible, a fine mountain road is now building in extension of the country road from Visalia.

For this purpose \$20,000 has been appropriated and expended during the two seasons past, and with it the Old Colony Mill road has been opened up and made passable, a little over 5 miles of new road built, and a well-constructed Pocett truss bridge placed across the Marble Canyon at a picturesque spot, 50 feet above the water, in a narrow, precipitous gorge.

The survey for the extension of the road into the forest is now progressing. The route out of the canyon is picturesque, and will contain no grade greater than 8 per cent. It will raise the crest and enter the forest near the Moro Rock, thence pass by Crescent Meadow, which will furnish fine pasturage for tourists' horses, through the best portions of the forest to the General Sherman, the largest tree there. Between the road and Moro Rock stands a lone Sequoia, considered the most perfect specimen, though not so large, which I have named for His Excellency Theodore Roosevelt, President of the United States. Farther on the road will pass near the beautiful trees named, respectively, Abraham Lincoln and William McKinley.

The direction of the road is such as to admit its extension to Kings River Canyon in case Congress sees fit to include that in the park.

When first assigned to duty in the park, I communicated with Mr. Taylor, of Kaweah, who had been foreman on the road work under my predecessor. Upon his recommendation I directed the necessary expenditure of not to exceed \$600 in opening the Old Colony Mill road, made impassable by the winter storms. This was completed satisfactorily by the time of my arrival. Inspecting the 3 miles of road built last year, I found it in very bad condition, due to the retaining walls having gone out below and land and rock slides having come in from above. Further, the failure to provide for drainage, especially at gulch crossings, had allowed the wash to make great havoc throughout. I therefore turned my first attention to the repair of this road, putting in substantial stone culverts at the gulch crossings, widening the roadway throughout, and building turn-outs on the prominent points. I had thus repaired about 2 miles of the road when I decided that the rest of the appropriation would be necessary for building the road on to the Mar



Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



THE MARBLE FORK BRIDGE.

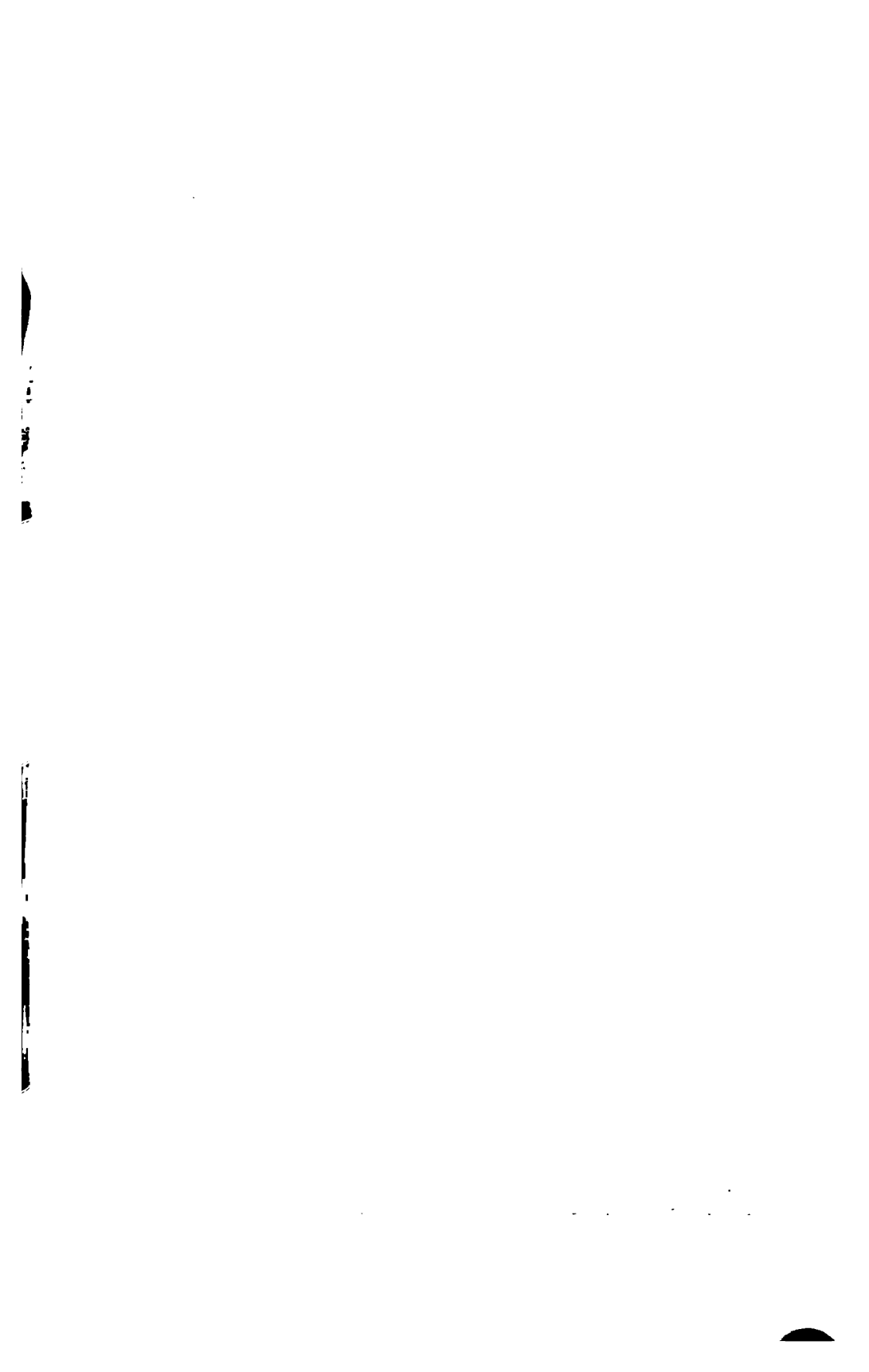
THE MARBLE FORK BRIDGE.



SCENE ON THIS YEAR'S GIANT FOREST ROAD.



THE MARBLE FORK BRIDGE.



Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



POINT LOOK-OFF, ON THE GIANT FOREST ROAD.

ble Canyon and putting the bridge across it. All energies were then bent to the extension of the road, and it was completed in less than a month, a distance of a little over 2 miles—a wide roadway, accurately graded, sloping toward the bank, where a gutter carries off all surface to small water culverts that discharge it under and below the road. There are 26 of these small culverts and 3 stone ones at gulch crossings in these 2 miles, as well as much rock work, one particularly hard rocky point having been rounded.

This new road was constructed at less cost per mile than was required in the repairing of last year's road, as here the work could be largely done by teams instead of hand.

The San Francisco Bridge Company had the contract for the bridge designed last year and completed it October 8, when I inspected and approved it. The best of timbers have been used, the foundations are solid native rock, and the workmanship good. The wings of the bridge were bent to meet the roadway on the sides of the canyon, so the whole sweep makes a substantial and attractive feature of the road. I have had every fourth plank of the flooring spiked, designing to have the two contiguous planks taken up during the winter and laid on the spiked one. This will prevent the snow banking up 15 or 20 feet, as it would on a solid flooring, and save the strain on the bridge. Next spring the loose planks can be relaid and held in place with one or two spikes. I recommend that this be done each season.

The opening of this Giant Forest road would appear to be the important consideration now, and from close study of the situation and this season's experience, I am convinced that the following steps should be taken: First, it should be put in permanent charge of one man and not left to chance detail of an officer who may never have seen a mountain road (as in my case); who comes late in the season and quite ignorant of all conditions, so that much time must be lost in studying the situation before organizing the work; who must learn all the men he is to work with, and who even then makes expensive mistakes while he learns the art of mountain-road building, only to turn his work over to another inexperienced man the next season. Then this man should be here to organize his working force by May 1. Great saving in time and money can be made by working the ground when moist, before the long dry season has made it hard and unworkable. If the work is to continue in charge of an army officer, let him come on ahead of his command.

The first work to be done, during May, while the snow still makes work impossible higher up, is to put culverts on the Old Colony Mill section of the road, and properly drain it. Until this is done it will wash out each winter, as last, and each spring require, as this, about \$500 for necessary repair. Further, there must be about twenty-five turn-outs built on this section of the road. There are practically none now for its 9 miles, a dangerous condition, as it is very narrow, often causing an hour's delay, hard work, and no little danger when teams meet. This was exemplified time and again this season and is a condition that ought not to exist on a road designed for the pleasure of tourists. The present expenditure of \$20,000 on the 5 miles beyond this, would seem to justify the small expense necessary to place these 9 miles, also within the park, in a safe and permanent state. For this part of the work \$2,000 are needed.

By the time this work is done the repair of the remaining mile of

last year's road can be taken up. This rounds a rocky point, where a vast amount of blasting and wall laying must yet be done to render the road safe and stable. This will cost not less than \$3,000. It also contains another stretch in and out of a gulch farther on, where \$1,000 must be spent in widening and retaining the road. This will perfect the road to the Marble, excepting a few simple additions that I will point out in a letter to my successor.

By this time work can be taken up on the extension beyond the Marble, and with such an organization as I had for about six weeks this season from 2 to 3 miles can be built per month, and with the best economy. This should open the road as far as the forest in July, in time for the tourists that season. The whole extension should be about 6 miles long and will cost about \$20,000.

TRAILS.

The so-called trails of the park are but little more than cow paths, and in fact have their foundation therein. Furthermore, it has been the practice to go round a fallen tree when met with, and so from year to year the loops increase, till the traveler wonders why. I am attempting to straighten the main trails, and look for a marked improvement now that the Department has approved my request and added a second ranger for the park. Two can do much where one will do nothing. I append my order of instructions to these men, to which attention is invited, and trust that my successor will find the trails more satisfactory. The first trail constructed this season was from the end of the new road, across the ford in the Marble Fork, and to Round Meadow in Giant Forest. This made the forest accessible for saddle and pack animals, and several tourists have taken advantage of it during the season.

I soon found that the one point of interest beyond the Giant Forest was the Kings River Canyon, and so made a proposition to the Visalia Board of Trade, to extend this trail on past the General Sherman tree to the north line of the park, if they would continue it from there into the canyon. This was accepted and the trail is just completed; so next season's tourists will find a well-constructed trail direct to the canyon. My portion of it was done by volunteer soldier work, under Corp. L. A. Dunbar, and by Ranger Britten.

Another important trail has been put in by Mr. Britten, cutting off about forty-five minutes time and some bad climbing on the trail, from the Forest to Alta Meadow and Panoramic Point, which is considered as furnishing the finest views in the mountains and passing within a few hundred feet of the top of Panther Peak, a lookout of no mean value.

CAVES.

By direction of the Secretary of the Interior I have personally inspected the Clough and Palmer caves. Both are in the limestone belt that traverses the park.

The Clough Cave is in the rocky side of the canyon of the South Fork, five hours from Kaweah post-office. A good trail will be opened to it by the beginning of next season. In formation it is but a tunnel, varying in width and in height from 3 to 12 and 15 feet. The first 100 feet are perpendicular to the face of the cliff, the floor practically

Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



HEAD OF MARBLE FORK FROM ALTO PEAK.



Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



ALTO PEAK FROM NORTHEAST.



MORO ROCK FROM HILL WEST. SEE MORO ROCK FROM POINT LOOK-OFF.





NORTH DOME AND LUMACT MEADOW, KING RIVER CANYON.
Thirty-three horses may be counted, with glass, in the meadow.



50

Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1907.



EAST SIDE OF BUCK CANYON, BELOW MOOSE LAKE.





Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



LAKE ON SHELL MOUNTAIN.

level. It then turns to the left and parallels the face for about 400 feet, the last 150 being on a plane some 8 feet higher and ending in a circular loop 100 feet in circumference.

This has been a beautiful cave for its stalactites, stalagmites, and pillars. But these have been broken by the hundred, while all are blackened by the smoke of the pine torches used in its exploration.

I consider the beauty of this cave too much impaired to justify the expense of its proper protection. An iron grating and gate could, however, be easily put in, when it could be entered only in the presence of such guards as the Department saw fit to furnish with keys.

The Palmer Cave is situated high in the mountain range to the northeast of the Clough, and about six hours from Kaweah on the old Hockett trail. This is quite different in formation, being a large cavern in the ground with an irregular opening in the roof about 10 by 20 feet. Through this we were lowered by rope tackle, a sheer drop of 60 feet, into the end of a vaulted cavern about 150 feet long, the floor sloping rapidly down away from the entrance, the roof perhaps 50 feet high at its highest, the sides very irregular, due to caving off of large rock masses, the greatest width being about 50 feet. Through a low opening well back and on the right side one climbs through into another large cavern, generally circular in shape, 100 feet in diameter, and about 30 feet high. Here are some beautiful stalactites and stalagmites and one noticeably beautiful pillar. Beyond this is yet another room, long, narrow, and of no particular interest. The beauties of this cave are unimpaired and the specimens quite perfect. Apparently it has been visited by but few parties, due to the hardship now attending its entrance. It is well worth preservation, and I recommend that an iron ladder be placed to admit easier access, with an iron grating, trapdoor, and key to prevent unauthorized visiting.

Now that the cave question is exploited, I am hearing of other caves but little known. I would recommend that a thorough investigation of these be made next season when time will admit.

FENCES.

Each of the small mountain meadows on main trails in the park should be fenced for the accommodation of tourists, whose stock must depend on grazing for feed. This could be done at little expense, as the posts could be gotten by having down timber worked up on shares. This timber should be cleared up in any event to lessen the danger from fires.

The county road along the North Fork, connecting with the Giant Forest road, is now obstructed by gates at farm lines, a great annoyance to travelers. I have arranged with the road commissioner at Visalia to have these gates removed and the road fenced during this winter, allowing the fence posts to be made from specified down trees now encumbering the right of way on the Giant Forest road, these posts to be all taken out under my supervision and before my departure. The road commissioner also promises to repair as far as possible the county roadbed, and especially to remove the one bad pull on the whole road—the hill at "Progress." I recommend that the park line be fenced where it crosses the South Fork canyon, with a gate on the trail. A mile and a half will close this entrance to stock and remove the present temptation of the many acres of fine pasturage on Bald Mountain.

PARK REGULATIONS.

The sheep have gone out of the country and that annoyance seems to be past. The stockmen have nowhere attempted to enter the park unlawfully, and but few hunters have been reported, and these from signs, none having been caught. In fact, it seems to be the spirit of the community to observe park regulations, now that it is believed that the Government is interested in developing the park.

FIRES.

During the season five forest fires have been controlled and extinguished, two in the Giant Forest itself.

The danger from fires will increase from year to year, due to the present accumulation into a fine mat of grasses, ferns, and underbrush heretofore eaten by the cattle. Furthermore, the forests would look better with this removal, and I recommend that stockmen be allowed to graze their herds in the park, under the direction of the acting superintendent, unless it is found that this materially lessens the storage capacity of the mountains for the summer supply of water for irrigation. The sheep did the damage, leaving the country bare behind them; but it is not so with the cattle.

GAME AND FISH.

It has not been unusual to see a deer or two in riding through the park, and they are apparently becoming more tame in the absence of hunting. Black and brown bear are also numerous, while grouse and mountain quail are very plentiful and tame. Many streams are already stocked with trout and Mr. Broder promises to stock Wolverton Creek this season. Tourists can always get fresh trout to eat, caught in a few moments.

PATENTED LANDS.

There are several private claims within the park, and even within the Giant Forest. This is a wrong condition if it is really designed to make a national park of this tract, and action should be taken to absorb them in the public ownership. I am told by citizens here that several of these claims could not hold good under a strict reading of the law, especially some classed as "swamp and overflowed land." This information would appear to justify an official investigation by the Department and I recommend that the matter be taken up at once.

TELEPHONE.

It is almost a necessity that the main camp of troops up in the mountains be connected by wire to the line at Three Rivers. This would also be of great value to the road work and to business men who may wish to visit the park, and I recommend that proper steps be taken to put in such a line.

GENERAL GRANT PARK.

This park is but 2 miles square and contains but the one attraction of 2 Sequoia groves, one, however, containing the General Grant tree. It is distant two days from the supply camp at Kaweah.

W.P. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.

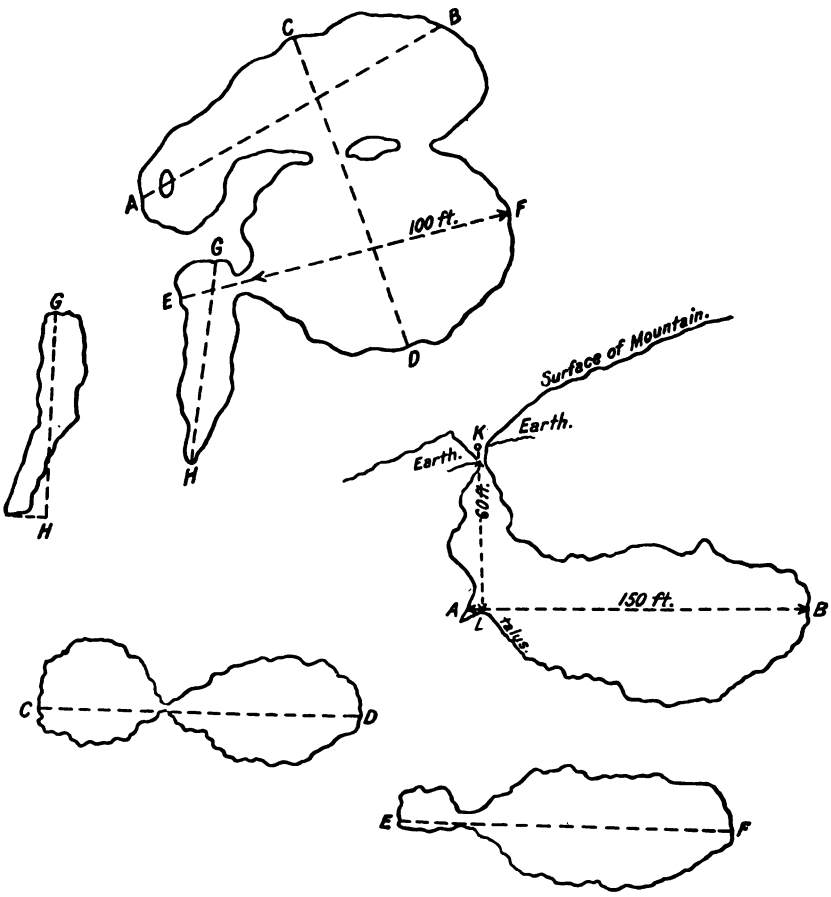


GEN. GRANT MNT. PARK, CALIFORNIA.

A CALIFORNIA LODGING HOUSE.



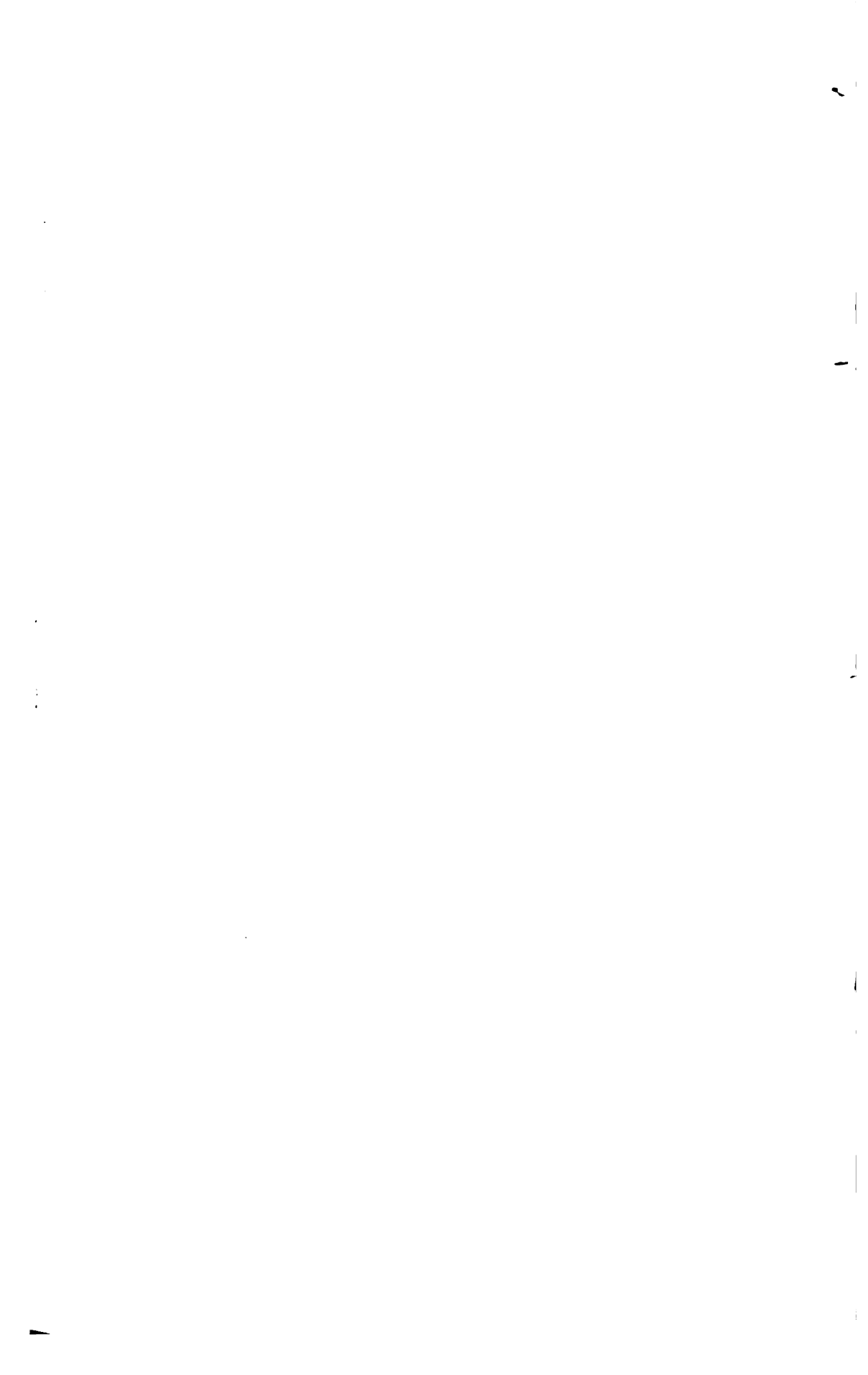
Rept. Acting Supt. Sequoia and Gen. Grant National Parks, 1901.



HORIZONTAL PROJECTION OF THE PALMER CAVE, SEQUOIA PARK, AND FOUR VERTICAL SECTIONS ON LINES INDICATED.

Tackle rigged at K; landing place on talus at L.





During this season \$2,500 have been expended in improvements. The park has been completely fenced, the top rail put on last season having been removed (what little was left of it), and used for post braces. This rail held the snow and was responsible for the breaking down of the fence during the winter. It was replaced by another strand of wire.

The "Stevens grade" was sufficiently repaired to admit the getting of teams into the park, but is still a poor and dangerous road, one person having been killed there this season in an accident due to the bad road. It could, however, be replaced by 2 miles of good grade at a cost of \$4,000, and I recommend that this be done next season.

Within the park a good road has been constructed from the entrance, 2½ miles, through the first and to the second Sequoia grove, passing close to the General Grant tree and lacking but a half mile of connecting with the Converse Basin road. This can be completed for \$300, and I recommend that it be done.

One thousand dollars has already been expended on cleaning up the rubbish and down timber in the Sequoia grove, thus protecting the trees from fire and adding to the appearance of the park. This costs about \$50 per acre, and there are about 40 acres yet to be cleared. I recommend the continuance of this work and the appropriation of \$1,000 therefor.

As to guards, it is an unnecessary expense to send soldiers there, now that the park is fenced. Further, depending on a soldier guard leaves the park unguarded for eight months of the year, and souvenir hunters have left traces of their presence during this time by taking a great many chunks of bark from the General Grant tree. If this spoliation is continued the tree will be killed in a few years.

One man can guard the park now as well as 10, and if there permanently, much better. More than this, he could keep the fence and road in repair and do much toward clearing up the ground about the trees. I have made special recommendation that such guard be established and the troops relieved in future, and trust that favorable action will be taken thereon.

In making the above recommendations I have been guided by what I understand to have been the policy for the park in the past, and I believe them for the best interests of that policy. But I regret that the Department has not been able to send a representative here this season to go over the ground with me before I submitted this report, that the future policy of the park might be clearly understood and a scheme of development adopted, on which I could have based broader recommendations.

If it is the design only to preserve the Giant Forest I would drop all those southern portions containing nothing to justify the name of park, and confine attention to the forest proper, completing the Giant Forest road and standing on that.

If, on the other hand, it is desired to combine the wonders of nature in this section into a national park to be in the same class with the Yellowstone and Yosemite, this, too, can be done. The canyons and mountains are here as grand, perhaps, as any in the world. Within reasonable distance of the Giant Forest is a central feature, and separated only by rugged, picturesque country, of no industrial value but as a reservoir for valley irrigation, are the Kings River and Kern River canyons, reported to be the deepest in the United States, and Mount Whitney, the highest mountain.

This will require the personal exposition in Washington of some representative man or committee of men who have first investigated the whole situation here on the ground and digested a complete plan of development, and in my judgment the natural features here more than justify the Department in taking such a course.

Very respectfully,

L. C. ANDREWS,
Captain and Quartermaster, Fifteenth Cavalry,
Acting Superintendent.

The honorable the SECRETARY OF THE INTERIOR.

INSTRUCTIONS TO PARK RANGERS.

In addition to your regular duties as guards you will do the following work:

First. Watch the Giant Forest road as to drainage and by timely care keep it from washing out during the winter storms. Then, as weather admits, work out the following trails for future use:

(1) A trail from near Burdicks, on the Old Colony Mill road, to open up the Black Oak Spring country, and making a circuit, connect with the Mineral King trail at or near Halstead Meadows. Total distance, about 15 miles.

(2) Repair the South Fork trail to Hocketts Meadows, making an offset to Cloughs Cave, with an easier approach to the cave itself, as explained personally to Ranger Britten. Then, as weather admits, continue this trail through Hocketts Meadows via Tar Gap to Weishers Mill.

(3) A trail, mostly repair work, from the Sherman Tree via the Panther Peak cut-off into the Alta Meadows country.

During the winter, when storms prevent outside work, prepare well-printed, clearly expressed signboards and next spring place them at all important trail crossings, indicating directions and distances by time scale for ordinary travel.

For example: One large sign to be placed at the park line on the Giant Forest road, as follows:

Sequoia National Park.

Giant Forest road.

To Cedar Spring, 1½ hours.

To Old Colony Mill, 2½ hours.

To Marble Fork Bridge, 3½ hours.

To the Giant Forest, 5 hours.

Also signs to mark each point of interest on this road. The paint for these signs has been purchased; the lumber is hereby authorized and will be paid for next season.

The two rangers are issued the following tools for their exclusive use and for which they are responsible: One crosscut saw, 2 axes, 2 brush cutters, 2 iron wedges, 1 iron sledge, 1 mattock, 1 pick, 1 short and 1 long handle shovel, and 1 crowbar.

The rangers will habitually work together, especially on trail and road work. It is designed that the main trails be straightened and widened and made trails, instead of rambling cow paths as at present, and attention will be paid to bushing out overhead and on the sides, as well as to making a good trail bed. It is assumed that my successor will be able to ride main trails next season without being brushed from the saddle or traveling 5 miles unnecessarily in order to go 2 miles.

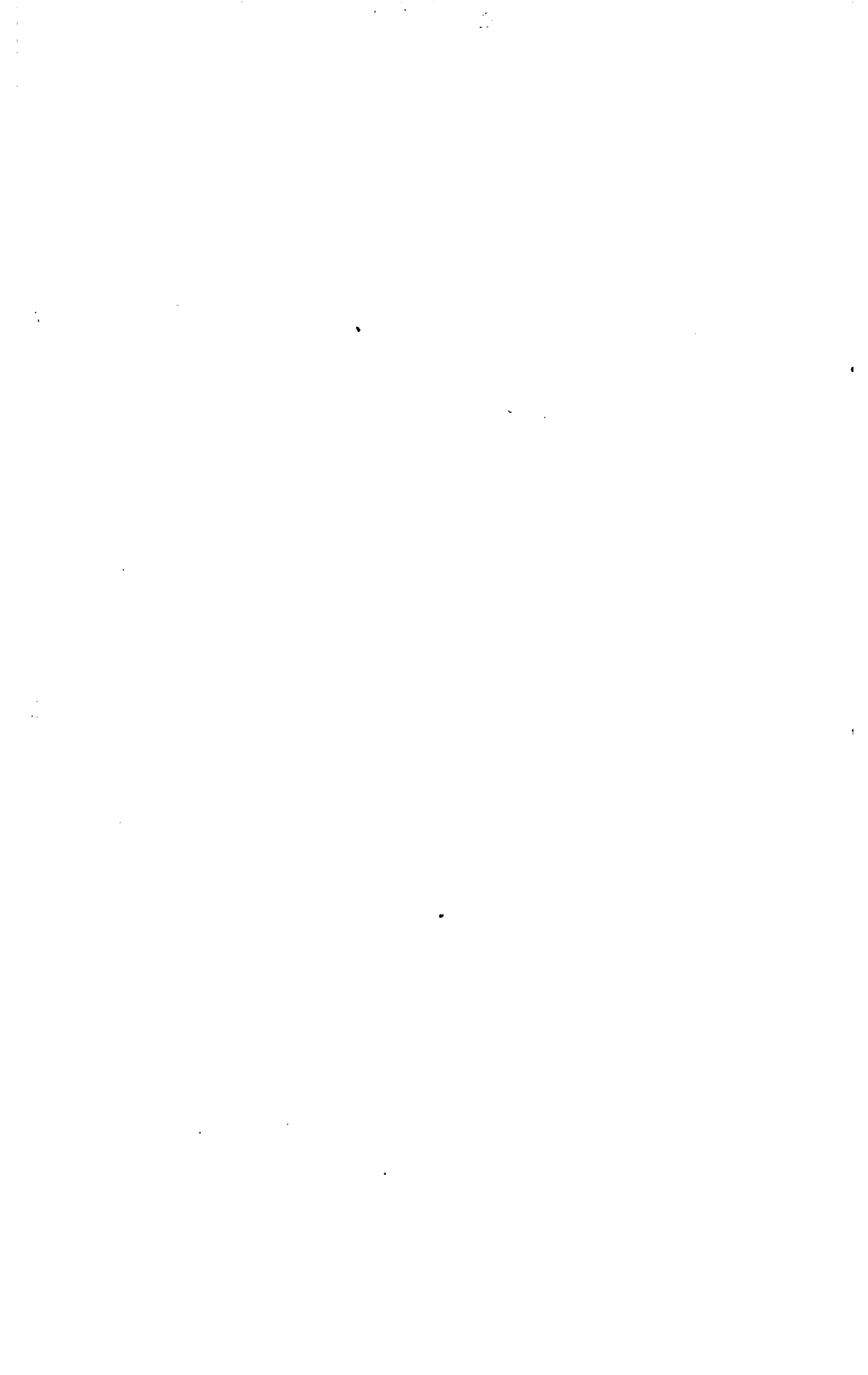
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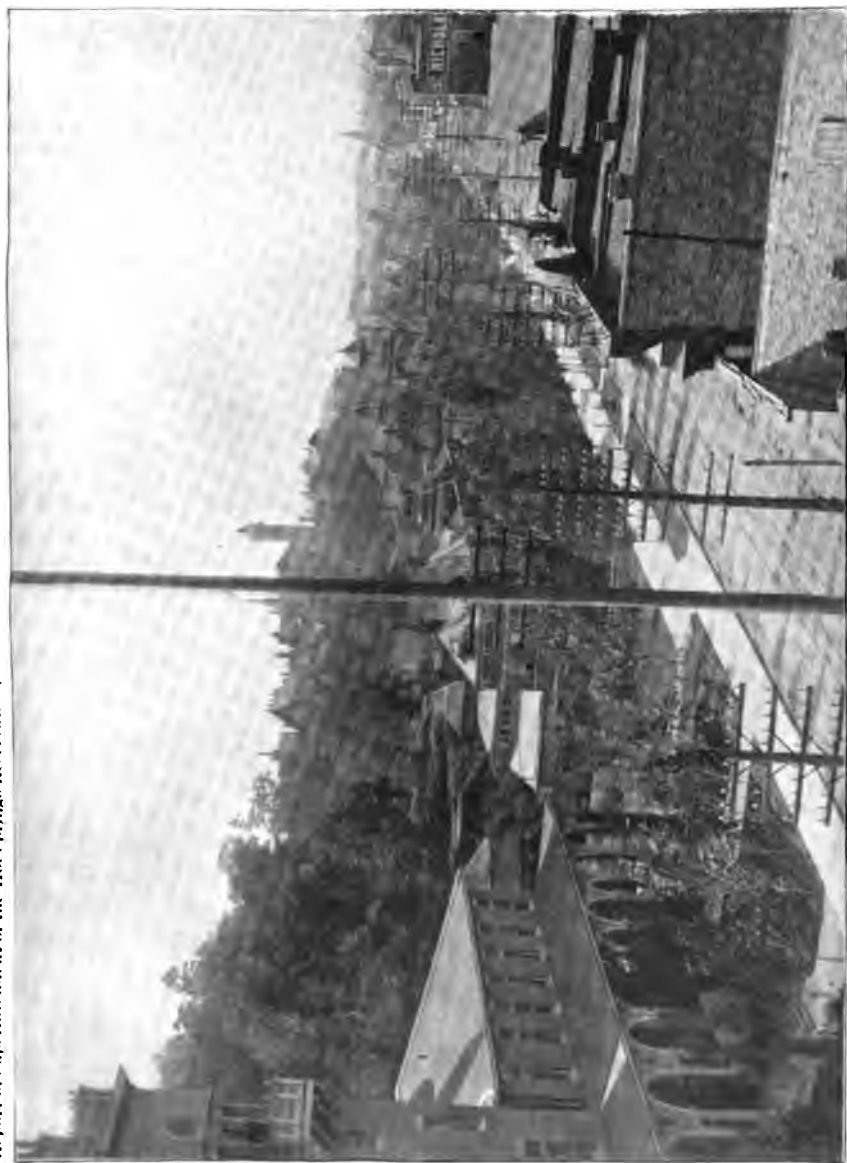
L. C. ANDREWS,
Captain and Quartermaster, Fifteenth Cavalry, Acting Superintendent.

Report of Superintendent of the Hot Springs Reservation, 1901.



OFFICE OF THE SUPERINTENDENT—BATH HOUSE ROW, HOT SPRINGS RESERVATION.

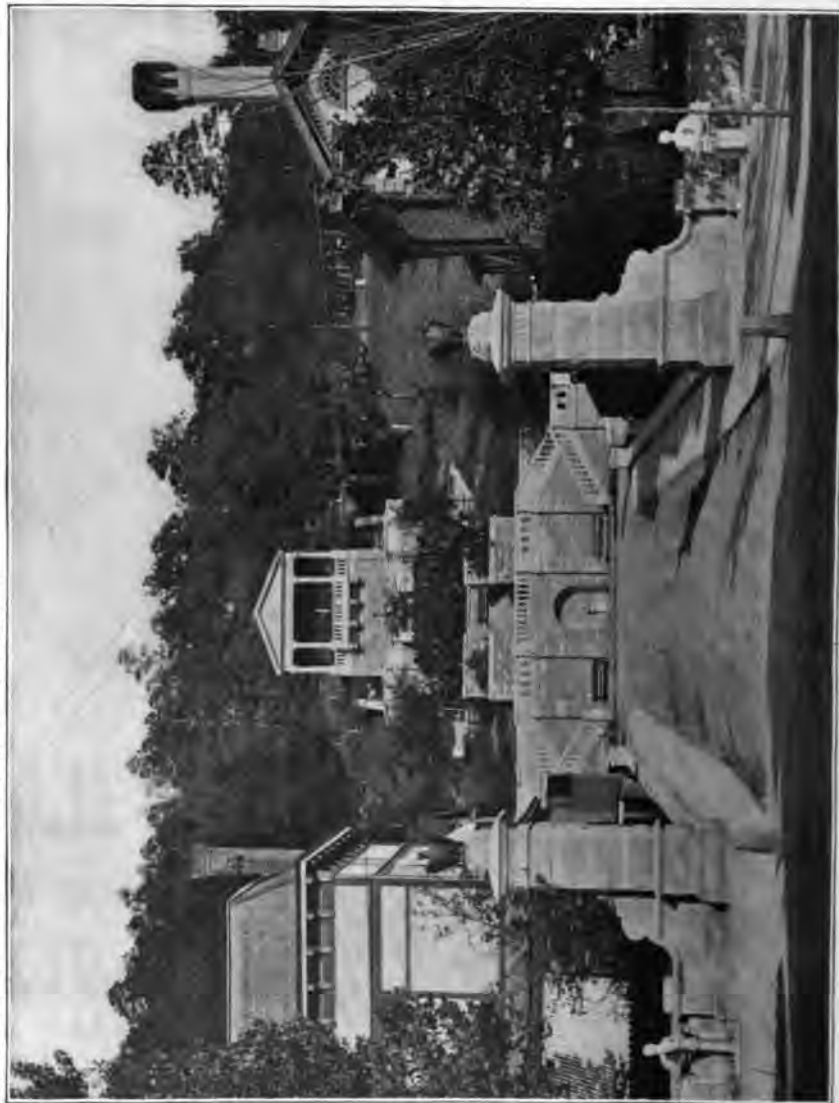




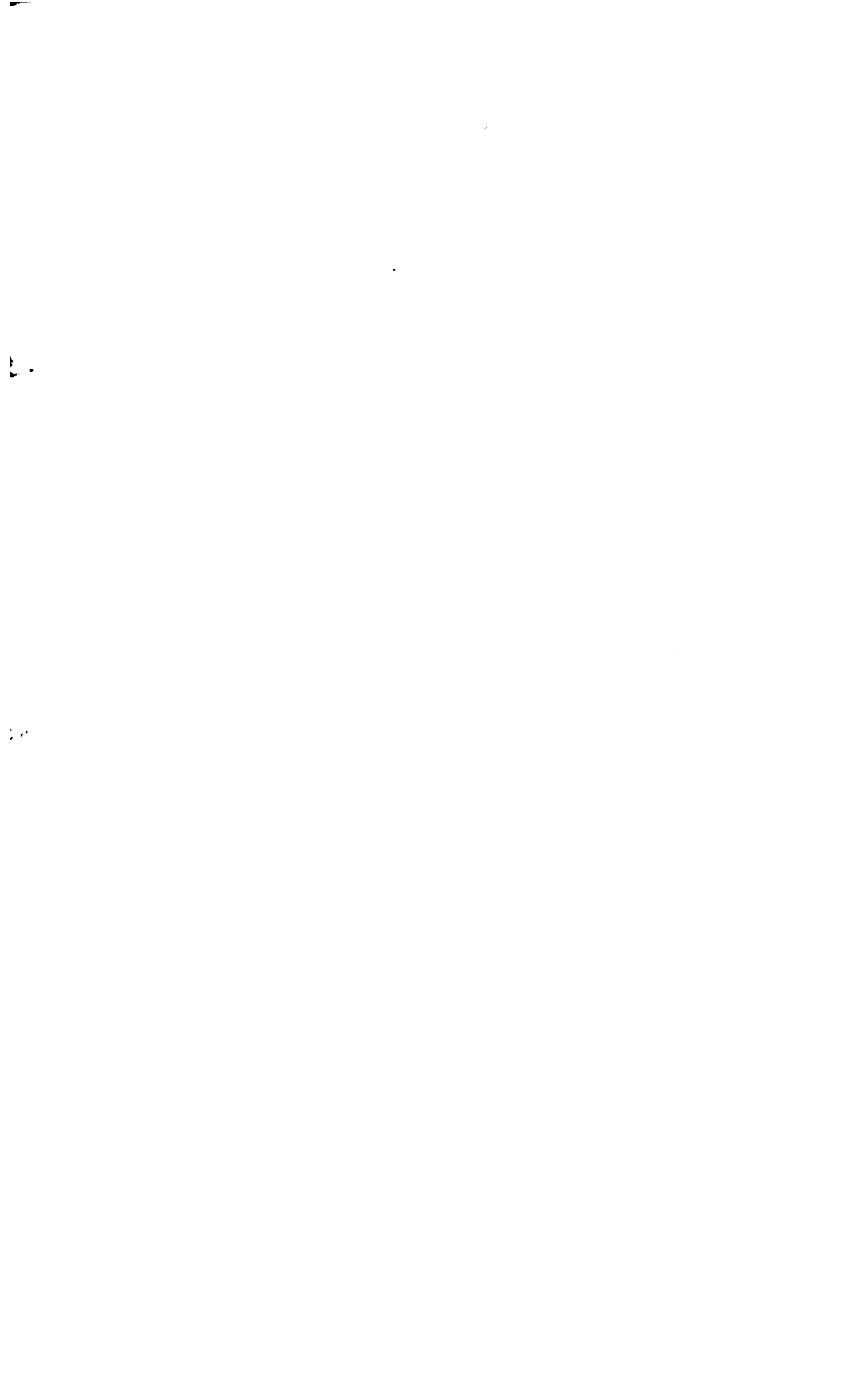
VIEW OF BATH HOUSES LOOKING SOUTH FROM ROOF OF WAUKESHA HOTEL.



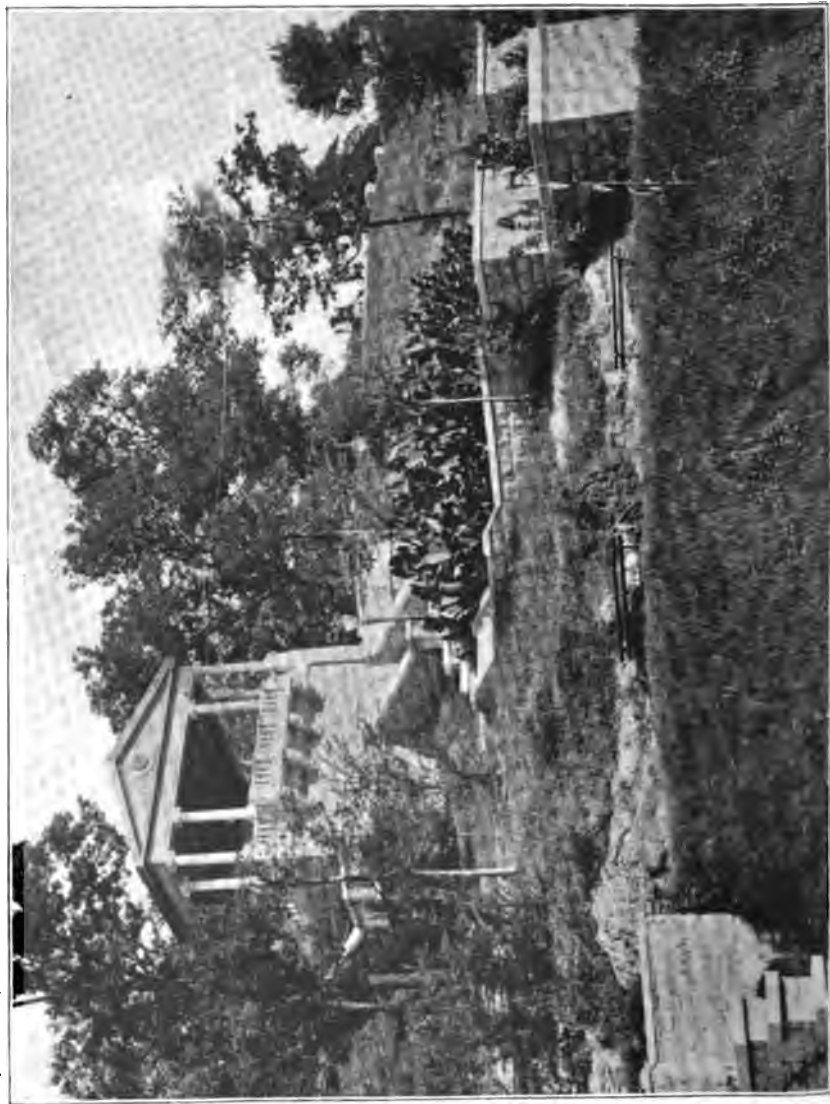
Report of Superintendent of the Hot Springs Reservation, 1901.



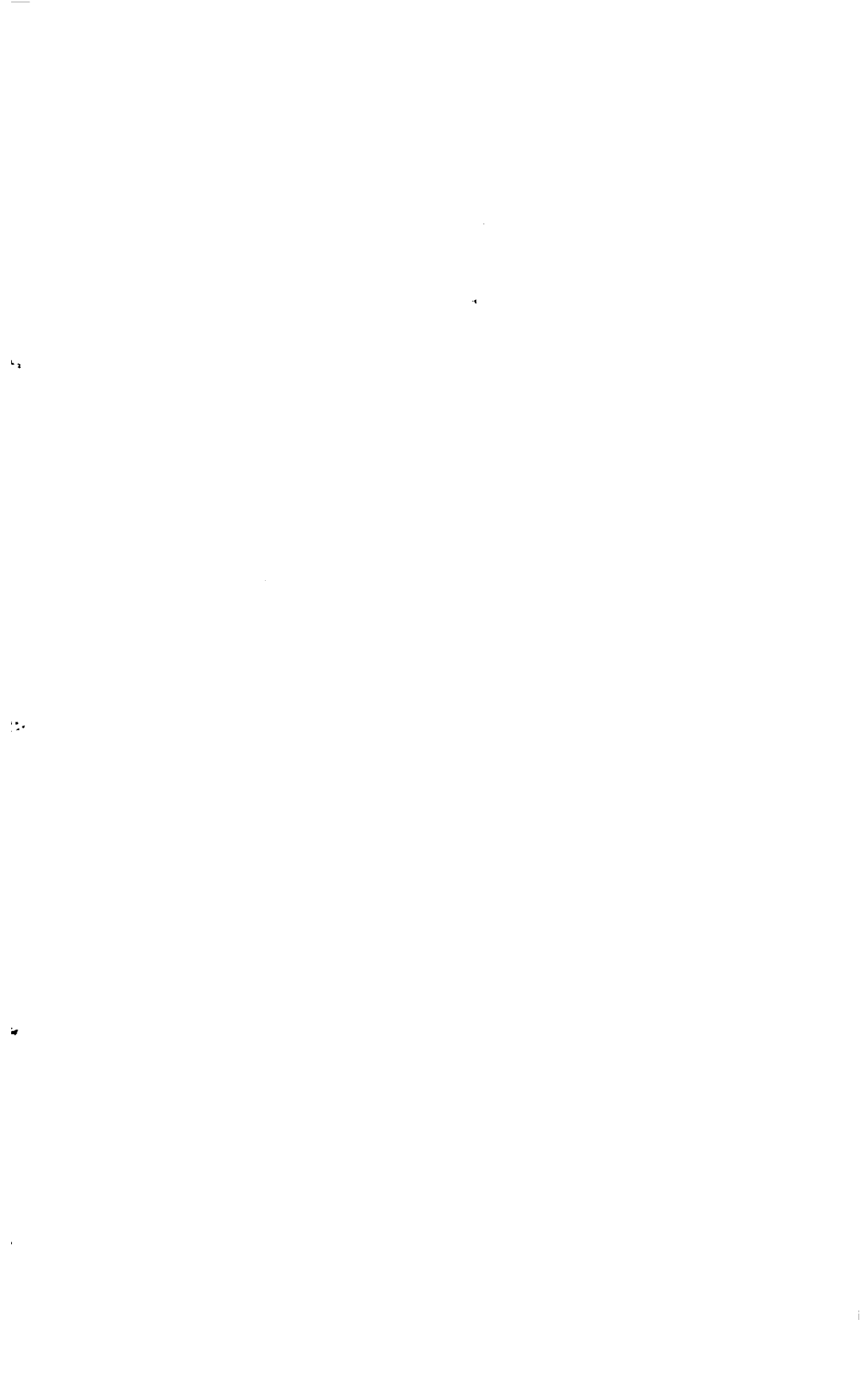
HOT SPRINGS RESERVATION. LOOKING EAST, SHOWING MAIN ENTRANCE (COMPLETED).



Report of Superintendent of the Hot Springs Reservation, 1901.



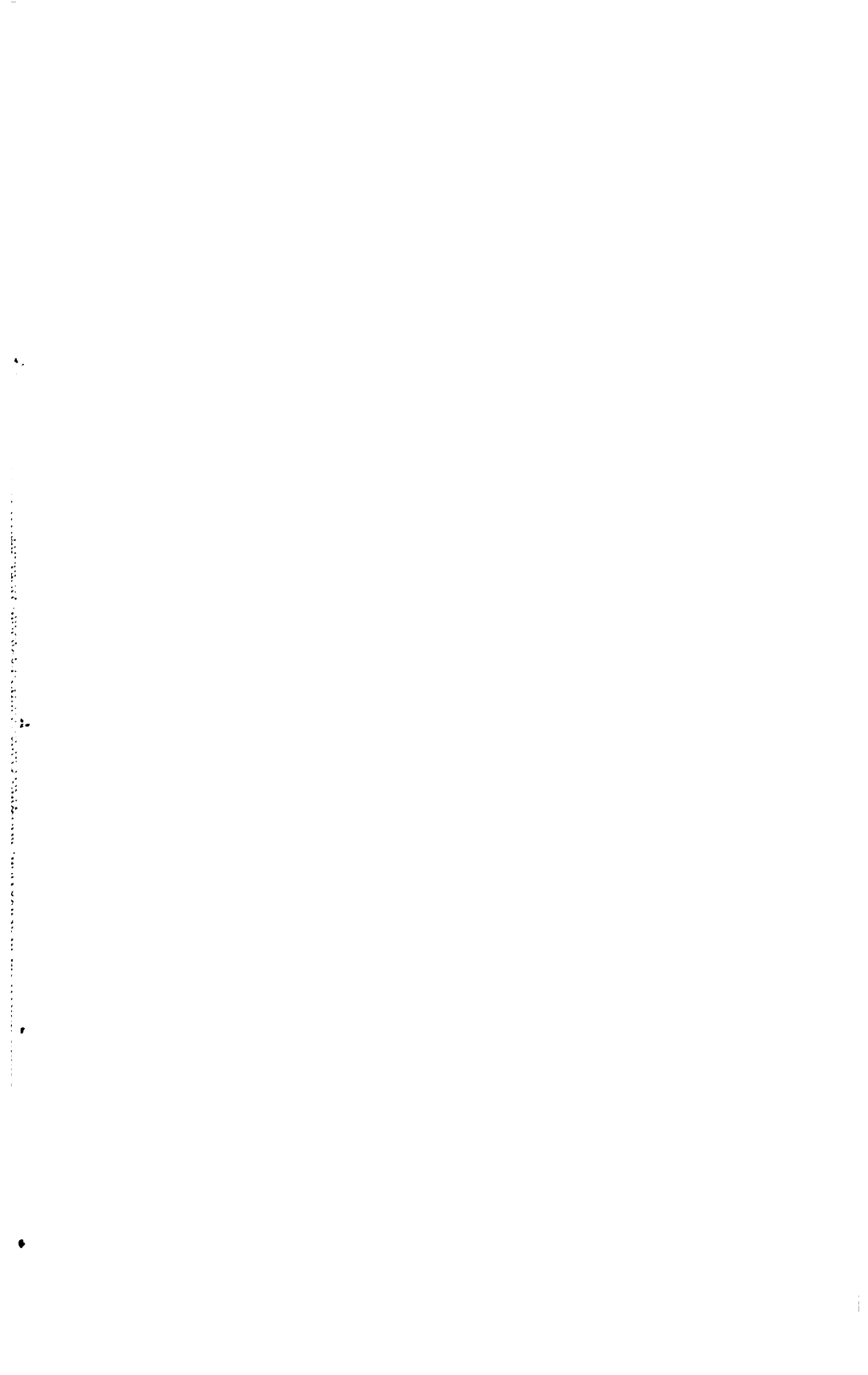
HOT SPRINGS RESERVATION. LOOKING SOUTHEAST, SHOWING PAVILION AT MAIN ENTRANCE.



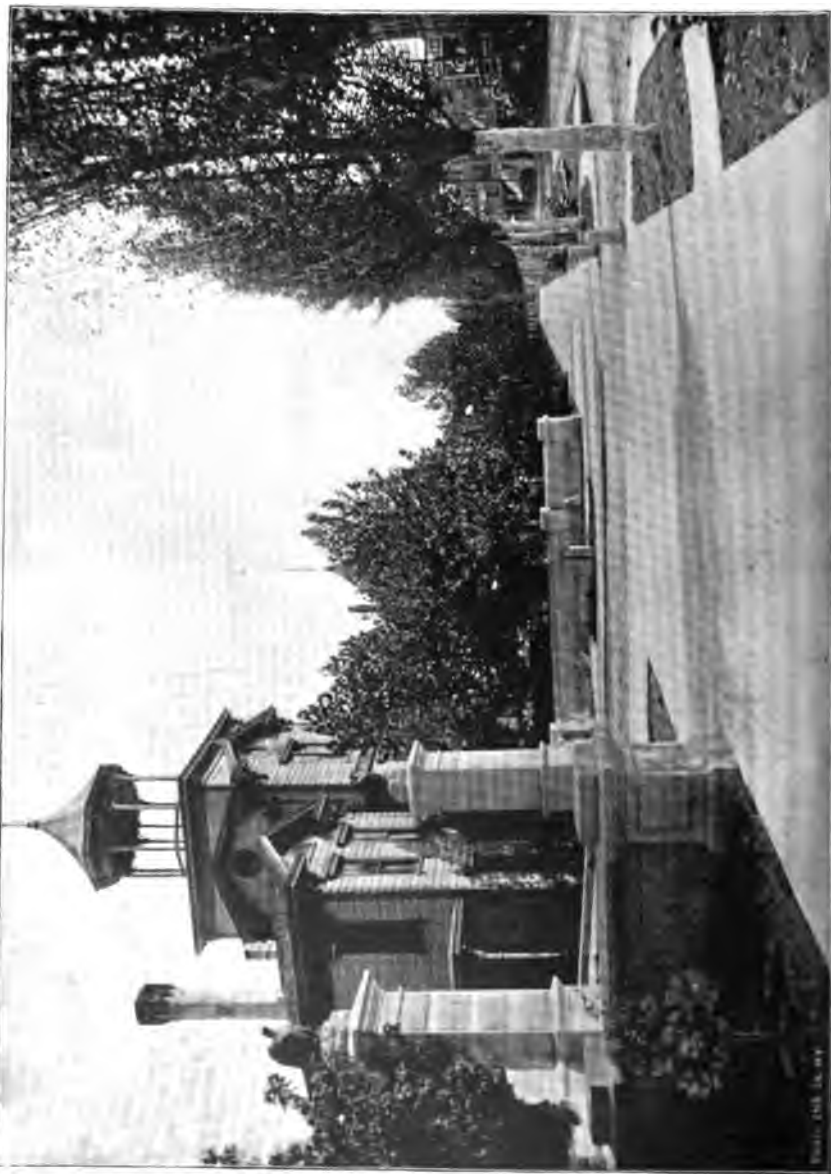
Report of Superintendent of the Hot Springs Reservation, 1901.



LOOKING NORTH ON RESERVATION, SHOWING ALUM SPRING PAVILION, HOKE SMITH FOUNTAIN, AND ARLINGTON HOTEL ;
PORTION BATH-HOUSE PARK, TO RIGHT.



Report of Superintendent of the Hot Springs Reservation, 1901.



LOOKING SOUTH FROM MAIN ENTRANCE GOVERNMENT RESERVATION.

REPORT
OF THE
SUPERINTENDENT OF THE HOT SPRINGS RESERVATION.

HOT SPRINGS RESERVATION,
OFFICE OF THE SUPERINTENDENT,
Hot Springs, Ark., September 10, 1901.

SIR: I have the honor to respectfully submit the following report of the operations of this office for the fiscal year ended June 30, 1901, reviewing the general conditions, together with recommendations for future allotments necessary for the improvement of this reservation.

The Hot Springs of Arkansas continues to add to its reputation as a health resort, and each succeeding year adds lustre to its renown. The patronage accorded this great national sanitarium during the fiscal year 1901 exceeds all previous records, and is a most flattering testimonial to its worth. From reliable sources of information I estimate the number of visitors during the year at 55,000. The total number of baths given during the year was 673,921.

The wisdom of the retention, control, and supervision of these wonderful waters under the fostering care of the National Government has been fully demonstrated during the few years that have elapsed since title was declared to be in the United States. The trust reposed by the people in the Government has been sacredly guarded. The springs are now the property of all the people, free from monopoly and extortion, and within the reach of all. The obligation assumed carried with it responsibilities which have been discharged for their protection and benefit, and is a guarantee for the future that in years to come this priceless boon to suffering humanity shall be administered with characteristic fidelity and consideration, to the end that it remain the common heritage of all mankind.

As long as disease and pain rack the human body the search for health and alleviation will continue. These thermal springs have long been looked upon as a medium through which nature imparted to the water a panacea for lingering ills.

These waters, emblematic of purity and symbolic of cleanliness, are warmed by the mysterious designs of God's providence and charged with his richest blessings for mankind. Hygeia, robed in her spotless garments of health, has pronounced her magic spell over the waters which gush forth from the mountain side, and, like the pool of Siloam, they breathe the eloquence of a mysterious power—the modern Bethesda whose waters are ever stirred by the angel of healing.

According to tradition, they are the famed fountains of perpetual youth which Ponce De Leon and De Soto sought in the depths of a mighty wilderness.

From the extensive and constantly increasing patronage accorded this resort, there can be no doubt that it stands without a rival on the American Continent, and in the vanguard of the most celebrated health resorts of the world. To sufferers of various diseases it offers a thermal water and climatic conditions unsurpassed, and no mineral waters yet discovered can show a greater number of cures or such a range and variety of human ailments that yield to their almost miraculous influence. Located in the meridian of temperate winds which meet and blend the pure refreshing northern currents with the balmy breezes of the tropics, thus securing a delightful medium and equilibrium of temperature; surrounded by the forest-crowned Ozark Mountains, which stand over her like sentinels, with their cliffs and rugged environs abounding in romantic situations and picturesque scenery; with a thermal water ample in volume and range of temperature to minister to the multitude, thus are they happily situated to contribute to the ultimate objects of man—health, longevity, and pleasure.

DISCOVERY.

No positive authentic historical data concerning the discovery of these springs are available at this late date; however, it is fair to presume from the legendary traditions handed down, that the world-famous Hot Springs were discovered by the nomadic primitive races, and their sanitary waters were used by a hundred generations before the adventurous Ponce De Leon set foot in the western wilds.

The footprints of ages are visible still in the growth strata of the tufa rock formation found on the mountain side, rusty with the evidences of a hoary antiquity.

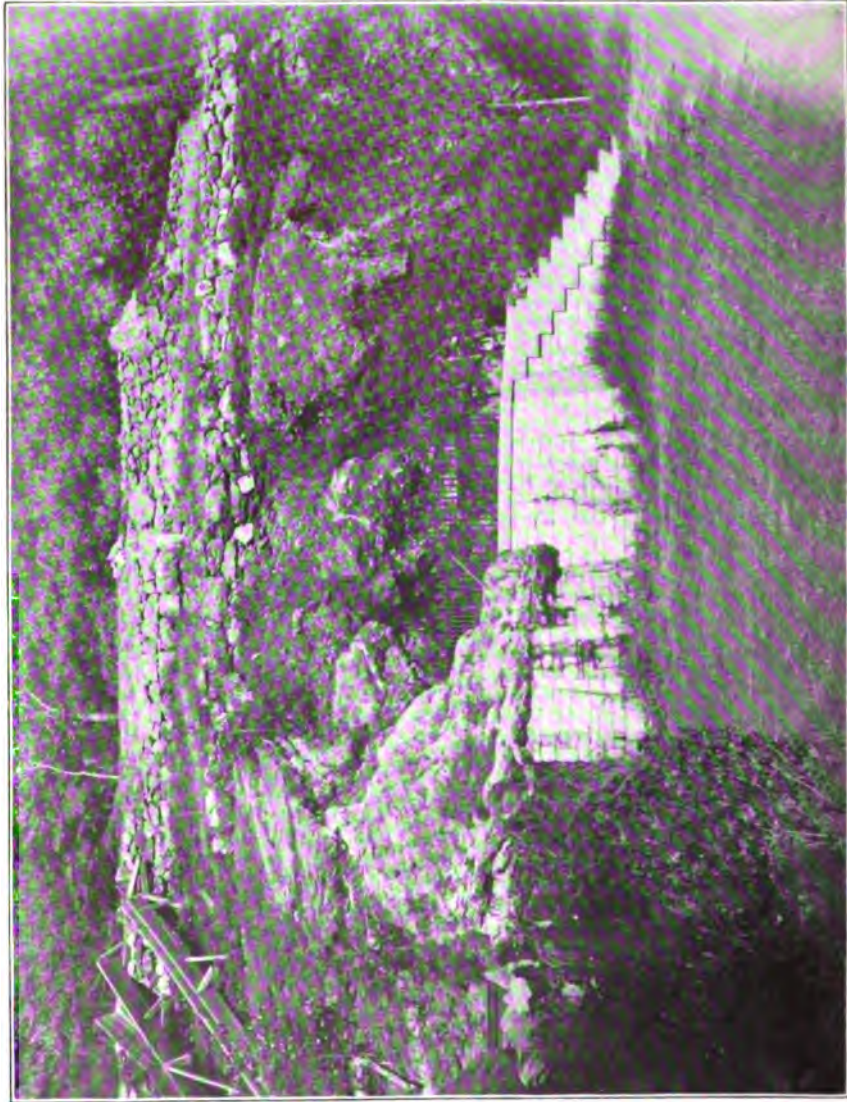
Frank M. Thompson, in a report in 1891, says:

Just when this wonderful and valuable water was discovered, by whom, and the situation of the springs, mountain slope, and valley at that time will never be known, nor can we ever know the number of centuries it has been flowing here. It has been estimated by scientists, from the physical evidence everywhere to be found in the vicinity of the springs, that they have been flowing over 2,300 years. It is probable, however, that De Soto and his proud, chivalric band of Castilians were the first white men to look upon and drink of the waters of the Hot Springs. The issuing of hot water at this particular point is a manifestation of God's power in creation. All remedial and restorative properties which it contains are natural. Its presence here and its mystic and marvelous powers of alleviation and restoration are not accidental. There was a beneficent design. It is God's free gift to suffering humanity, and it was intended to be and remain forever within the reach of all and for the benefit of all. It is true that the water first flowed over the surface of the earth in the homelessness of a mighty wilderness, and apparently forever beyond the reach of man. The first wild flowers which it warmed as it flowed down the mountain side were blooming and blossoming in the silence and solitude of an unknown land. The vapor, ascending heavenward, was laden with the perfumes of the wounded flowers and the music of the wild birds. All was wildness, denseness, and darkness. The sunlight and the starlight struggled with the hush and loneliness of the valley, and the songs and stories of tradition have been carried away to the realms of forgetfulness by the winds of that wild land, and the notes of that dismal day are buried in the mausoleum of the centuries. All is mysterious, shadowy, and silent.

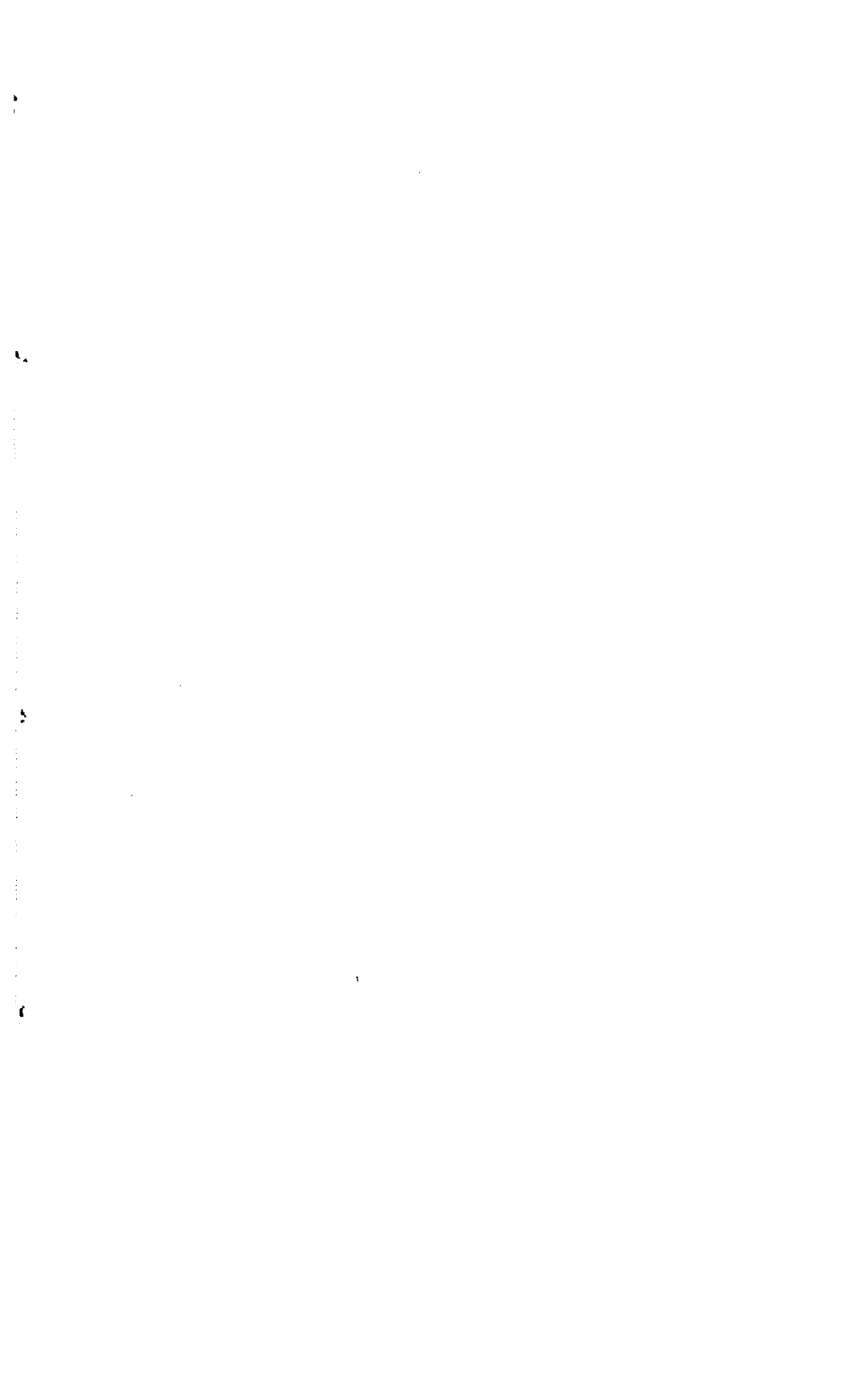
Prof. Enno Sander, in his work on mineral springs, says:

The Arkansas Hot Springs have been known since the commemoration of American history, for it has been mentioned by early Spanish historians as the "Fountain of

Report of Superintendent of the Hot Springs Reservation, 1901.



LOOKING EAST, SHOWING TUFA BLUFF AND THE SECURED AND ENCLOSED HALE SPRING BELOW.



Report of Superintendent of the Hot Springs Reservation, 1907.



LOOKING EAST, SHOWING "CAVE SPRING."
Taken at head of steps on Arlington Supply Road.

Youth," which was sought after by Ponce de Leon, and is said to have been found by De Soto in 1541, too late to restore him to health. According to tradition, the healing properties of the hot waters must have been known to the Indians long before the advent of the Spaniards, for there are many legends to prove this fact. In recent history it seems to have been first visited by white persons of American origin about the commencement of this century, but it became better known and visited toward the end of the twenties.

The evolution of this city from the tepees and wigwams of the Indians to the present cosmopolitan watering place has been gradual but constant. From all the reliable data available, information which can be considered of sufficient weight and evidence of truthful history, it can be established that the earliest white settlers came here in the year 1800. Dunbar and Hunter of the expedition of Lewis and Clarke visited the Hot Springs in December, 1804, and their report shows that they found an open log cabin and a few huts built of split boards, all calculated for summer encampment, and which had been erected by persons resorting to the springs for the recovery of their health. Manuel Prudhomme built a cabin here in 1807, and was joined in the same year by John Perciful and Isaac Cates, who camped here and engaged in hunting and trapping. From this time on down to the present the history is complete, and shows that its fame began to spread and each year added to its patronage.

PERMANENT RESERVATION.

The Hot Springs Reservation at present contains 911.63 acres. The original reservation was established by act of Congress approved April 20, 1832. By said act it was enacted "that the Hot Springs in Arkansas Territory, together with four sections of land including said springs, as near the center thereof as may be, shall be reserved for the future disposal of the United States and shall not be entered, located, or appropriated for any other purpose whatever." Under the provisions of this act the south half of sections 28 and 29, and all of sections 32 and 33, township 2 south, range 19 west, of the fifth principal meridian, and the north half of sections 4 and 5, township 3 south, range 19 west, were set apart and designated as the original Hot Springs Reservation, and contained 2,529.10 acres.

Prior to the passage of this act and subsequent thereto numerous persons laid claim for possession of these famous springs and the lands adjacent—some parties under a New Madrid certificate and some under preemption settlements. Much bitterness of feeling was manifested by the different claimants and assigns in the contention for titles and maintaining the same against supposed usurpation. The history of those stirring times is full of local interest, and the recital of them by the older inhabitants discloses many sanguinary encounters and acts of personal violence, and developed almost endless legal controversies.

Mr. Justice Field, in passing on one of the numerous cases submitted to the United States Supreme Court, said:

From the protracted litigation to which it has given rise the Hot Springs Reservation is famous in the history of land titles of the country. Early in the present century the medicinal qualities of these springs were discovered, and from that fact the adjacent lands had an exceptional value.

Mr. Justice Bradley, in delivering the opinion of the court in another case, said:

The title to a well-known watering place in the State of Arkansas, called the Hot Springs, now located in Hot Springs County, has been contested by a number of

claimants for nearly half a century. These springs are situated in a narrow valley or ravine between two rocky ridges in one of the lateral ranges of the Ozark Mountains, about 60 miles to the westward of Little Rock. Though not easily accessible, and in a district of country claimed by the Indians until after the treaty made with the Quapaws in 1818, they were considerably frequented by invalids and others as early as 1810 or 1812, but no permanent settlement was made at the place until a number of years afterwards. Temporary cabins were erected by visitors and by those who resorted there to dispose of articles needed by visitors, but were only occupied during a portion of the year. The public surveys were not extended to that portion of the country until 1838.

In order to settle, if possible, the controversies which existed and which seemed interminable, none of the parties having any regular Government title, and it being doubtful whether any of them were entitled thereto, Congress on the 31st day of May, 1870 (16 Stat. L., 149), passed an act in relation to the Hot Springs Reservation in Arkansas, the first section of which is as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person claiming title, either legal or equitable, to the whole or part of the four sections of land constituting what is known as the Hot Springs Reservation, in Hot Springs County, in the State of Arkansas, may institute against the United States in the Court of Claims and prosecute to final decision any suit that may be necessary to settle the same: *Provided,* That no such suits shall be brought at any time after the expiration of ninety days from the passage of this act, and all claim to any part of said reservation upon which suit shall not be brought under the provisions of this act within that time shall be forever barred.

Under the provisions of this act numerous suits were filed in the Court of Claims, which upon a full hearing and complete review of all the evidence submitted gave verdict against the several claimants and decided the title to be in the Government. From this decision an appeal was taken to the Supreme Court of the United States, where upon final hearing the decision of the Court of Claims was affirmed April 24, 1876.

Congress passed an act, approved March 3, 1877, creating a commission of three persons, to be appointed by the President, whose duties, after examination of the topography of the reservation, were to lay it out into convenient squares, blocks, avenues, streets, and alleys, the lines of which shall correspond with the existing boundary lines of occupants of said reservation, as near as may be, consistent with the interests of the United States.

In accordance with the provisions of this act Aaron H. Cragin, of New Hampshire; John Coburn, of Indiana, and Marcellus L. Stearns, of Florida, were appointed as the Hot Springs Commission, who proceeded to carry out the requirements of the law, and made their final report to the honorable Secretary of the Interior December 11, 1879, in which they state that "the claims for the right to purchase land have all been adjudicated, the records made up, the appraisements have been made, the surveys have been completed, and the unreserved land laid out as a town. The obstructions have been removed from the streets and the permanent reservation, and the maps prepared, and all the work contemplated by law has been completed."

This report practically marks the legal birth of the city of Hot Springs, and all the improvements of a permanent character and the progress and advancement of the municipality dates from the completion of the work of the Hot Springs Commission, which time has demonstrated was conceived in wisdom and executed with fidelity to the trust reposed in them and in conformity with the requirements of the law.

As a result of their work, the original Hot Springs Reservation, containing 2,529.10 acres, was subdivided as follows:

Total number of blocks laid out into lots, 196.	
	Acres.
Total number of lots awarded to individuals, 1,435, containing	699. 81
Total number of lots not awarded, 584, containing.....	570. 29
Area of streets and alleys.....	358. 37
Permanent reservation.....	264. 93
North Mountain Reservation.....	224. 74
Sugar Loaf Mountain Reservation.....	129. 02
West Mountain Reservation.....	281. 94
	<hr/>
Total area	2, 529. 10

By act of Congress approved June 16, 1880, the four mountains mentioned in the above table were forever reserved from sale and dedicated to public use as parks, amounting to 900.63 acres, to which has been added, by authority vested in the Secretary of the Interior, what is known as the Whittington Lake Reserve, containing 11 acres, making the total area, as it exists at present, 911.63 acres. By this act, also, the streets, courts, alleys, and other thoroughfares of the town of Hot Springs, as surveyed, opened, and established by the commission, and not included in the permanent reservation, were ceded and dedicated to the corporation of the city of Hot Springs for public use, and authority given the Secretary of the Interior to sell at public auction, at his discretion, the unawarded Government lots, and under this authority there was sold, at the first sale in 1881, 256 lots, and at the sale in 1892, 171 lots; total of 427, leaving 157 yet unsold.

THE MUNICIPALITY.

This charmingly novel, quaint, and romantic city, which derives its name from the thermal springs which flow from the mountain side, charged with properties for the healing of the nations, is situated near the geographical center of the State of Arkansas; nestled away in a beautiful and romantic ravine, which opens fan-like to the southeast into a gentle undulating country, almost surrounded by the breaks and spurs of the Ozark Mountains, 50 miles, a trifle south of west of Little Rock, 4 miles from the picturesque Ouachita River, and 70 miles east of the Indian Territory. Previous to 1876 there was no municipal government, and the city was ruled by county officials. The incorporation and development of the city of Hot Springs dates from April 5, 1876, when, upon petition of citizens, the Garland County court issued an order incorporating the town of Hot Springs, with a territory of 1,200 acres within the corporate limits. September 1 of the same year it was made a city of the second class, with three ward divisions, and on March 13, 1879, became a city of the first class; on December 10, 1885, the number of wards was changed to four, and on October 23 of the following year all the territory in the original Hot Springs Reservation was annexed to and made a part of the city. In 1890 an additional annexation of territory was made, and in 1892 the corporation limits were still further extended, and the number of wards increased to six. The present city government is progressive and liberal, broad gauged, and considerate of the various classes of people who visit the springs. The city has all the modern improvements that belong to cities of the first class, which includes metropolitan police system, paid

fire department, electric street railroad, gas works, fine system of water-works, local and long-distance telephone system, complete sewer system, 15 schools, 19 churches, magnificent hostelries, and active lodges of leading secret and benevolent organizations. The private residences have improved greatly during the last few years, until now the suburbs are ornamented with substantial and artistic homes, which are gratifying evidences of refinement and domestic comforts.

Solid through trains run from St. Louis to Hot Springs over the St. Louis, Iron Mountain and Southern Railroad in connection with the Little Rock and Hot Springs Western (Fordyce system). The Choctaw system also runs through trains over its own line into the city. Through sleeping cars are now run to Hot Springs from various cities, making it accessible quickly and comfortably from all parts of the country. The resident population, as evidenced by the last census, is 10,000.

CLIMATIC CONDITIONS.

This resort, being climatically situated about midway between the frigid north and torrid south, in the Ozark Mountains, has a climate unsurpassed in the country, where the winter season is usually just cold enough to be bracing and invigorating, while the summers are not so hot and sultry, but, on the contrary, with its mountain air, cool nights, and perpetual breezes, it could not easily be more happily situated between these climatic extremes; all seasons of the year are equally good. The mild winters, with weeks of bright sunshine, excite favorable comment and admiration. In midsummer, when, with the coming of evening, the cool air rushes down through the valley from the mountains, promoting delightful and refreshing sleep; the skies are clear and beautiful as those of Italy, while the thermometer rarely indicates an extreme at any season. A popular error existed for a number of years that Hot Springs was a winter resort. This error is happily being dispelled, and thousands are making it an all-year-round resort. From personal observation covering several years, I give it as my opinion that spring, summer, and autumn are really more favorable than midwinter for a course of baths. It may be summed up by saying that all seasons are favorable, and good results may be expected. Located in latitude 34° north and longitude 93° west, at an altitude of 700 feet above sea level, it is most happily placed by Omnipotent design for a national health resort.

One distinguishing feature of this remarkable health resort is the fact that, owing to the proper altitude and climatic conditions, the sweating process is thorough and complete. The humidity of the atmosphere in a moderate altitude ranges from 65° to 75° , while in a high altitude it is reduced to from 35° to 45° , with the result that a person emerging from a hot bath in the former case takes from thirty-five to forty minutes to cool off, while in the latter, owing to the rapid absorption of moisture by the dry atmosphere, the process occupies only fifteen to twenty minutes—too rapid to be safe. In the extreme high mountain resorts the process of sweating is rather retarded than promoted. That this is an important factor in the success of the Arkansas Hot Springs is undisputed, and this feature is recognized as of great value, especially in diseases where it is desired to eliminate accumulated poisonous matter in the system through the secretory

glands and where it is desired to keep up a current through the blood vessels from within outward, the water drank in the bath supplying that lost by the blood in sweating. Water, being the great natural solvent and eliminator, thus accomplishes the relief and cure of many diseases; especially is this true in persons saturated with nicotine acquired through excesses of the tobacco habit, and in alcoholism and in many forms of chronic diseases the copious diaphoresis which the bath establishes opens in itself a channel for the expulsion of disease.

THE HOT SPRINGS.

The total number of hot springs is 46 and the total flow is 830,000 gallons in twenty-four hours, and the range in temperature is from 97.2° to 147° F. All previous reports and printed data concerning this matter give the number of hot springs as 73, and the flow has been variously estimated at from 400,000 to 1,000,000 gallons. This probably was the original number of springs, counting the small seepages as springs; but many of the smaller springs have been converged into one outlet by development work on the reservation, until now there can not be traced a number equal to that heretofore reported. While the total number of springs does not equal that heretofore reported, the recent development work has greatly augmented the water supply.

During the year, and in connection with the work of making the official analysis of the water of the hot springs, we have located and actually determined the number of hot springs; the temperature taken both by centigrade and Fahrenheit thermometers; the total flow of each spring accurately measured, and a map will be prepared showing the location of each spring also, indicating the pipe lines, various connections, stopcocks, reservoirs, etc., which is of the utmost importance and will prove of inestimable value in future administrations of this reservation. The springs have been walled up with brick and the side walls carefully covered with cement, and an arch sprung over each spring, with manhole entrances, which will protect the springs from pollution and allow opportunity for examination and repairs to pipe connections. Suitable stone monuments are to be placed over each spring, with the designating number chiseled thereon. As this feature of the work will probably be discussed by Professor Haywood in his forthcoming report, I will merely append the following table, which gives the serial numbers, temperature, and total flow:

Temperature of springs and flow.

No.	Name.	Date.	Degrees centigrade.	Degrees Fahrenheit.	Number of gallons flow every 24 hours.
1	Egg Spring	Nov. 7, 1900	61.9	143.4	28,800
		Jan. 8, 1901	61.7	143.1	
2	Arsenic Spring	Nov. 8, 1900	51.9	125.4	5,400
		Jan. 8, 1901	53.9	129.0	
3	Arlington Spring.....	Nov. 9, 1900	61.7	143.1	19,938
		Jan. 8, 1901	61.3	142.3	
4	Cliff Spring.....	Nov. 10, 1900	55.9	132.6	3,600
		Jan. 8, 1901	52.4	126.3	
5	Avenue Spring	Nov. 12, 1900	61.4	142.5	17,280
		Jan. 8, 1901	61.9	143.4	
6	Boiler House Spring.....	Nov. 13, 1900	57.5	135.5	32,400
		Jan. 8, 1901	58.3	136.9	
7	Imperial Spring (north).....	Nov. 14, 1900	60.1	140.2	9,257
		Jan. 8, 1901	60.8	141.4	

Temperature of springs and flow—Continued.

No.	Name.	Date.	Degrees centigrade.	Degrees Fahrenheit.	Number of gallons flow every 24 hours.
8	Crystal Spring.....	Nov. 16, 1900	35.2	95.4	2,000
		Jan. 8, 1901	36.2	97.2	
9	Rector Spring.....	Nov. 17, 1900	61.1	142.0	25,920
		Jan. 8, 1901	62.4	144.3	
10	Cave Spring.....	Nov. 19, 1900	57.4	135.3	18,514
		Jan. 8, 1901	57.2	135.0	
11	Little Iron Spring (north).....	Jan. 8, 1901	56.8	134.2	12,960
		Nov. 22, 1900	36.2	97.2	
12	Little Geyser Spring.....	Jan. 8, 1901	36.2	97.2	524
		Nov. 22, 1900	36.2	97.2	
13	Little Iron Spring (south).....	Jan. 8, 1901	56.3	133.3	12,960
		Nov. 23, 1900	60.9	141.6	
14	Ral Spring.....	Jan. 8, 1901	62.8	145.0	8,640
		Nov. 24, 1900	63.9	147.0	
15	Big Iron Spring.....	Jan. 7, 1901	63.9	147.0	201,600
		Nov. 26, 1900	60.8	141.4	
16	Imperial Spring (south).....	Jan. 8, 1901	60.9	141.6	9,257
		Nov. 28, 1900	55.4	131.7	
17	Arsenic Spring (north).....	Jan. 8, 1901	56.4	133.5	5,400
		Nov. 27, 1900	57.3	135.2	
18	Hitchcock Spring.....	Jan. 8, 1901	57.3	135.2	35,000
		Dec. 1, 1900	56.4	133.5	
19	Sumpter Spring.....	Jan. 8, 1900	56.1	133.0	13,292
		Dec. 3, 1900	46.3	115.3	
20	Superior Spring (north).....	Jan. 8, 1901	44.5	112.1	3,677
		Dec. 4, 1900	43.3	109.9	
21	Alum Spring.....	Jan. 8, 1901	46.0	114.8	1,152
		Dec. 5, 1900	57.1	134.8	
22	Superior Spring (south).....	Jan. 8, 1901	56.5	133.7	2,700
		Dec. 6, 1900	62.0	143.6	
23	Twin Spring (north).....	Jan. 8, 1901	62.4	144.3	5,400
		Dec. 10, 1900	62.3	144.1	
24	Twin Spring (south).....	Jan. 8, 1901	60.3	140.5	5,400
		Dec. 10, 1900	62.7	144.8	
25	Old Hale Spring.....	Jan. 8, 1901	62.9	145.2	3,500
		Dec. 11, 1900	63.4	146.1	
26	Palace Spring.....	Jan. 8, 1901	61.4	142.5	25,847
		Dec. 12, 1900	.....	.....
27	Tunnel Spring.....	Jan. 8, 1901	51.9	125.4	800
		Dec. 14, 1900	.....	.....
28	Maurice Spring.....	Jan. 8, 1901	59.8	139.6	21,000
		Dec. 13, 1900	57.1	134.8	
29	Dripping Spring.....	Jan. 8, 1901	57.8	136.0	2,618
		Dec. 15, 1900	53.9	129.0	
30	Arch Spring.....	Jan. 8, 1901	51.9	125.4	34,045
		Dec. 19, 1900	51.4	124.5	
31	Haywood Spring.....	Jan. 8, 1901	51.4	124.5	3,600
		Dec. 17, 1900	46.0	114.8	
32	John W. Noble Spring.....	Jan. 8, 1901	46.5	115.7	28,800
		Dec. 18, 1900	48.3	118.9	
33	Lamar Spring.....	Jan. 8, 1901	49.2	120.6	3,600
		Dec. 20, 1900	47.9	118.2	
34	H. W. Wiley Spring.....	Jan. 8, 1901	47.3	117.1	28,800
		Dec. 21, 1900	39.0	102.2	
35	Ed Hardin Spring.....	Jan. 8, 1901	43.0	109.4	2,469
		Dec. 22, 1900	48.9	120.0	
36	Eisele Spring.....	Jan. 8, 1901	48.8	119.8	9,600
		Dec. 26, 1900	52.9	127.2	
37	Stevens Spring.....	Jan. 8, 1901	52.6	126.7	5,760
		Dec. 27, 1900	58.8	137.8	
38	Horseshoe Spring.....	Jan. 8, 1901	59.8	139.6	40,000
		Dec. 28, 1900	61.4	142.5	
39	Army and Navy Spring.....	Jan. 8, 1901	61.4	142.5	35,000
		Dec. 31, 1900	58.9	138.0	
40	W. J. Little Spring.....	Jan. 8, 1901	58.9	138.0	4,320
		Dec. 29, 1900	46.8	116.2	
41	Mud Spring.....	Jan. 8, 1901	48.3	118.9	4,000
		Jan. 2, 1901	.....	.....
42	Magnesia Spring.....	Jan. 8, 1901	58.3	136.9	50,000
		Jan. 3, 1901	46.3	115.3	
43	Reservoir Spring.....	Jan. 8, 1901	46.1	115.0	20,000
		Jan. 4, 1901	8.0	46.4	
44	Liver Spring (cold).....	Jan. 8, 1901	.....	.....	659
		Jan. 5, 1901	13.0	55.4	
45	Kidney Spring (cold).....	Jan. 8, 1901	.....	.....	511
		Jan. 6, 1901	51.5	124.7	
46	Fordyce Spring.....	Jan. 8, 1901	51.5	124.7	25,000
		Jan. 8, 1901	51.5	124.7	

The springs issue from the base and sides of Hot Springs Mountain at various elevations ranging from 1 to 100 feet above the level of the valley. They are a priceless gift from nature to suffering humanity and are one of the most wonderful phenomena on the globe.

Omnipotence has strewn our continent with wonders and marvels, but among them all none are more passing strange than the issuing of hot water at this particular point. Picturesque in situation, mysterious in formation, almost miraculous in beneficial power, they gush forth from the mother earth, carrying a balm for all physical ills. The extraordinary and potential effects of the waters afford abundant reason and cause for the great research and scientific study that has been given in the effort to ascertain what alchemic ingredient the wonderful waters contain. The scientists of the world have for years been involved in a discussion concerning the origin of hot springs, but all theories are but the product of inductive or deductive speculation. All the hot waters are clear as ether, and are tasteless and inodorous. No scientific experimentation or analysis has ever yet been able to show why natural thermal waters have such a potency in curing disease over artificially heated water, nor why the waters of Hot Springs, Ark., are so much more effectual in this respect than other thermal waters; but experience of time has demonstrated the fact that natural thermal waters have an influence in diseases not to be found in any artificially heated water. So also have the present generation by thousands established the fact conclusively that the waters from these springs are more potent in curing chronic diseases than any other natural thermal waters. It is unfortunately true that the efficient curative agents of these waters are as mysterious as the source of the heat with which they are charged.

One of the most interesting as well as the earliest articles to which scientific interest attaches on account of the eminent abilities of the author, is that of Prof. David Dale Owen, State geologist, in 1858.

Professor Owen says:

Various have been the speculations with regard to the causes of the high temperature of these waters, and my opinion has been repeatedly asked on the subject. I can not for several reasons subscribe to the views advanced by some, that the elevation of temperature is caused by the water coming in contact with caustic lime in the interior of the earth. Lime has so great an affinity for carbonic acid that it can not long remain for any great length of time in an uncombined caustic condition, and therefore is seldom found in that state either on the surface or in the bowels of the earth, and if it did it would long since have been reduced to the state of hydrate, if not to the state of carbonate, by contact with the copious flow of water charged with carbonic acid, when it would no longer give off heat by chemical action produced during its combination with the water. Much less can I give assent to the extraordinary idea that the high temperature of these waters is due to latent heat given off from the water, in the act depositing the tufa that now coats the hillsides from which the springs issue, and which was originally held in solution, since we have no instance of any appreciable heat being given off by simple precipitation, or settling out of the carbonate lime as it loses the carbonic acid which held it in solution; besides this, it is so slow a process that if any heat was held off it would be so little at a time as to be insensible to the feelings. On the contrary, I attribute the cause to the internal heat of the earth. I do not mean to say that the waters come into actual contact with fire, but rather that the waters are completely permeated with highly heated vapors and gases which emanate from a source much deeper seated than the water itself. The whole geological structure of the country, and that of the Hot Springs Ridge in particular, from which the springs issue justifies the assumption.

Hunt, Mallet, and Le Conte are united upon the theory that the heat of the water is due to its passage through the earth at an extreme

depth, and in support of their theory they make the following observations:

It is now beyond question that there is an increase in temperature downward from the surface of the earth, and observations are so far accordant that the range of recent estimates of the rate of increase is only from 1° F. for 50 feet of descent to 1° for 90 feet. So we have reason to expect that water which, between the region where it enters the earth and the point at which it emerges, passes far beneath the surface will have been heated and will issue with a temperature higher than local temperature of the ground and air; that is, it will be thermal; the deeper the water passes in its subterranean passage, the more heat it will receive. So hot springs may be found where the rock structure is such as to lead subterranean water by quick passages from great depths, and since water follows either fissures or the parting of strata these conditions will be found only where the rocks are greatly inclined or fractured.

From an anonymous publication I find the following observations, and as this theory has many advocates I reproduce it:

A most plausible theory, and one entertained by many (though strongly combated by not a few), is that the heat of these waters is due to volcanic and electrical influences; certain it is that all evidences obtainable tend to prove this theory—that at one time Hot Springs Mountain flow was in an eruptive state. The tufa which covers the mountain, and the limestone which bears the impress of heat and lava, furnish what we deem irrefutable evidence of the volcanic theory.

THE HEALING AGENT.

This subject is the prolific source of wide discussion among both scientific students and laymen, but the conclusions reached are only satisfactory to the individuals who espouse this or that theory. Much has been written and numerous theories evolved from the study of this wonderful power. The results, promulgated through numerous articles, are at least interesting, if not conclusive.

A prominent physician of this city gives the following as an opinion: "Chemical analysis does not show the presence of a single salt or gas which can not be produced in the laboratory and which is not prescribed in some form by physicians throughout the country. The imitation of natural mineral waters is often effected by the aid of science, but there seems to be some quality lacking which lessens their alterative and curative properties and their hold upon popular favor. It may be that a subtle element lurks in the laboratory of nature which is too tenuous and delicate for any known chemical test and upon which depends the potential activities manifested by the heated fountains. Most writers on thermal springs believe that their chief value depends upon temperature, and I am strongly disposed to indorse, with certain reservations, their opinions. It is a question with me whether their efficacy is due to temperature as indicated by the thermometer or to an allotropic condition of heat, as ozone is of oxygen. I can not believe the great caldron of nature possesses no power of imparting qualities to them not contained by common water which is the product of artificial heat and when the researches of science shall have been pushed further there will not be found curatives and healing properties to which their benefits may be ascribed."

Dr. J. L. Gebhart, a distinguished physician retired from practice, who has devoted much time to scientific study of these waters and who has made many interesting experiments, says:

The most important discovery was in relation to the condition of the silicon, the most of which was found in combination with hydrogen, instead of oxygen with bases, as is generally the case in other hot springs, although at the time I began this

investigation I was not aware that any such combination of silicon and hydrogen was at all possible. This is the only known form of compound in which this element silicon is at all active as a medical agent, being a diffusible stimulant, exhilarant, and a most efficient alterative, having also the property of satisfying the inordinate craving for alcoholic stimulants. This discovery for the first time explains much of the mystery in relation to the unparalleled curative properties of the waters of Hot Springs, and must soon result in a more scientific application of them to the many complications that have heretofore been treated empirically. During the course of my investigations curious electrical phenomena were observed which were finally demonstrated to be the evolution of electricity of extremely low tension, which was probably due to the deposition of solids from the water, and there is great reason for believing that when the water is used as a bath during the time of this evolution the heat is either directly or indirectly correlated into vital energy, which is then and there appropriated by the newly born cells by which tissues acquire a higher degree of vital energy, as fast as the old cells of impaired vitality die off and are eliminated from the system as effete matter; that such correlations and changes of form of energy do occur in the use of food and medicines is too well known to require any argument at this day, and it is a subject of common observation that during the process of disintegration and elimination made so extremely active as to cause extreme debility and prostration under ordinary conditions is here counteracted by a corresponding activity of the processes of assimilation and reparation, under the above-mentioned rejuvenating influences, so that the invalid becomes rapidly revitalized with new tissues of a higher life standard. This no doubt is the secret of the great success in the treatment of all forms of female diseases here over those of males, inasmuch as the lives of females are spent indoors and with more sedentary habits, resulting in blood poisoning by effete matter being retained in the system when no longer of use, causing obstructions, irregularities, pain, and suffering in a thousand ways.

To these, in the absence of all other known agencies, must be attributed the astonishingly and unparalleled cures daily witnessed at these famous springs.

Walton, in Mineral Springs of the United States and Canada, says of these springs:

The waters of Hot Springs, Ark., resemble the waters of Gaston in Austria and Paffers in Switzerland. How do they cure? Principally by elevated temperature. Having a continuous flow of over 500 gallons per minute, and ranging in temperature from 99° to 150° F., we would expect favorable results from their judicious use. And we are not surprised to learn of cures under their employment that have resisted all other modes of treatment. It is asked, Why not use hot water at home? Because it is impossible to procure it in sufficient quantities and of uniform temperature. Some consider that terrestrial heat possesses peculiar properties, rendering it more efficient than artificial heat. Dr. G. W. Lawrence, who has had ample opportunity for observation, holds that a positive difference exists in the natural thermal water of Arkansas and artificially heated water, which he attributes to the thermo-electric properties of thermal waters. He says the natural produces a stimulating sweat, whereas the artificial waters produce a relaxing diaphoretic action.

THE OFFICIAL ANALYSIS.

Numerous attempts have been made at various times to produce an analysis of these waters. Prof. David Dale Owen, State geologist, claims to have made an analysis of these waters in 1858, and published the result of his work. Previous to this, in 1856, an analysis was made by Prof. E. H. Larkin, of St. Louis, and published. In 1890 an analysis was made under the direction of Professor Branner, State geologist, and the results published in superintendent's report of 1891, but these analyses covered only a small number of springs and were necessarily not complete and comprehensive, and not being made under Government authority are unsatisfactory in conclusions. In my report of 1900 to the Department I urged the importance of an official analysis under authority of the Government, and that this analysis should cover all the springs, in order to determine the relative difference, if any, of the various springs in chemical constituents. It is gratifying

to announce that during the year and in conformity to a request of the honorable Secretary of the Interior, a competent chemist, in the person of Prof. J. K. Haywood, of the Bureau of Chemistry of the Department of Agriculture, has been detailed and assigned to this most important work, which is still in progress, and I regret that the results can not be embodied in this report. This analysis, when completed, will prove of great value both to the Government and the public, and it is believed that many of the hidden problems surrounding the mysterious influences and action of these waters will yield to scientific investigation and the secret power of alleviation will be made known to the world for their enlightenment and benefit. The publication of the chemist's report is awaited with eager interest.

DISEASES CURED AND BENEFITED.

Formerly the majority of invalids seeking these thermal springs were debilitated by diseases of protracted duration, which had sapped the bases of life, perverted the functions, and set up processes of decay. Observation and experience have demonstrated that these waters are proving beneficial in a wide range of diseases. Until now diseases wherein they were formerly supposed to be contraindicated are proving of great value when used with intelligent direction. The waters are administered in the treatment of diseases both internally and by immersion in all the different forms of the bath. The experience of resident physicians of marked ability and experience, observation, and study demonstrates that the following list of diseases are successfully treated by the use of the baths and the internal administration of the waters: Rheumatism, gout, stiff joints, skin diseases, scrofula, syphilis, nervous affection, paralysis, spinal diseases, sciatica, catarrh, specific locomotor ataxia, dyspepsia, uterine diseases, especially sterility, leucorrhœa, malaria, blood disorders of a chronic character, and alcoholism. Dr. J. L. Gebhart, resident physician, retired from practice, whose scientific articles on hot springs have attracted wide attention, gives the following interesting observations on the uses and application of the Hot Springs waters:

The immediate effect of a bath at 98° F. of this water, as compared to a bath of ordinary water of the same temperature, is that it is very much more stimulating, exhilarating, and eliminant; the heat of the body is raised from 3° to 4°, the action of the heart is augmented both in frequency and force, often increasing the frequency twenty-five beats in a minute, all the secretory organs becoming roused into greater activity, a feeling of pleasure and gladness, a modification of pain and weariness, and a relaxation of muscular and ligamentary contraction.

The effects of the continued use of the baths are: Remarkably great alterative action, correcting retrograde metamorphosis; equalizing and moderating nervous excitability; increased action of the absorbent system; increased disintegration of tissue; great increase of assimilation and reparation; unparalleled activity of all excretory organs, eliminating mineral blood poisons rapidly, such as lead, mercury, and iodine, so rapidly that the compounds of the last two named are frequently prescribed and are often taken in heroic doses with almost perfect impunity; eliminating all effete and poisonous products of the disintegration of tissue by the kidneys and skin, and the material abatement of the morbid craving for alcohol and tobacco in those who have acquired the habits of excessive use of these stimulants. All of these therapeutic properties, more especially the alterative, are counteracted by the use of opium, tobacco, and alcohol. In my opinion most of the failures are not due to lack of virtue in the waters so much as to their mismanagement and indiscretions on the part of the patients themselves.

The pathological conditions wherein these waters are contraindicated are: Whenever the pulse is materially accelerated by the disease; an exalted action of the heart and arteries; where there is a tendency to active inflammation or any form of acute

disease; where the action of the heart is in any way interfered with either by structural change or the presence of liquid in the pericardium; where there is a marked increase of the temperature of the body; in hectic fevers; in cancer or any form of epithelioma; where there is a tendency to wasting hemorrhages, and with pregnant females.

It may be assumed that all forms of chronic diseases where the pulse is not materially accelerated by the disease itself are here rapidly and permanently relieved; all kinds of pain which is now recognized as the cry of a nerve for food, is abated by satiety, joyous health, strength, and vivacity, in the place of disease, languor, and debility.

A prominent resident physician, now in active practice, whose abilities and professional standing renders his opinions valuable, has the following to say of the action of these waters:

Most persons visiting thermal springs suffer from want of blood in the extremities, or rather their circulation is not active and complete, there being a want of surface action. This proceeds from one of two causes, either the heart is too weak to perform its function from excessive work and the want of proper nerve force, or it is due to enfeebled respiration and nutrition, which producé such slow action and insufficient changes that the circulation is no longer composed of two distinct kinds of blood which have different capacities with unlike affinities for the tubes of the blood vessels, causing activity in the capillaries. Such invalids have their capillaries stimulated by the hot bath and their circulation partially restored until a better hygienic condition improves the blood and restores the qualities of the venous and arterial currents. The perversion of nervous action due to passive congestion of the capillaries greatly retards restoration to health, and if it be overcome temporarily a great victory is won. Invalids can take mineral medicines with less injury when daily using the baths than at other times. Especially is this the case in the use of mercury. After it has performed its office by producing alterative effects it is removed by the glands, which are excited to action by the bath, and another portion may be given without danger. The hot water drank while in the bath keeps up a constant current through the blood vessels, which does much to overcome congestion and wash out any poisonous mineral which the tissues contain. Its high endosmotic action gives an impulse to its circulation from within outward not possessed by water differently heated and having a lower temperature, and the presence of carbonic-acid gas in large quantities renders it palatable as well as tonic.

In all forms of dyspepsia and in ulcers of the stomach and intestines the actual bathing which the diseased surfaces receive from the hot water drank materially aids in hastening cures. In inflammation and ulceration of the skin the greatest benefit is derived from the application of soothing fluids, and the same plan of treatment should be adopted, to a certain degree, in the cure of accessible ulcers within the body. Through endosmosis such surfaces are deprived of their saline irritants by the hot water, and by diluting and washing off the accumulated secretions the part is permitted to form a new coating, its healthy processes being undisturbed by the presence of foreign matter. Diseases of the liver have been greatly benefited by the baths of the hot springs. The liver performs the double function of secretion and excretion, and the dual actions are essential to the health of the body. The entire stream of nutritious matters (a part of the oleaginous matters being excepted) circulates through this viscus, and any impairment of its functions or disease of its structure by inflammation, acute or chronic, vitiates the pabulum which preserves and nourishes the whole system. In all tropical and semitropical countries affections of the liver are foci from which radiate diseases to other organs, and frequently a superficial examination assigns to them the disease to which they are merely the sympathetic expression. In cases where the portal circulation is impaired or impeded the blood is kept back in the venous trunks of the intestines and helps to produce congestion, which results in hemorrhoids, metritis, and varicose vessels of lower extremities. The absence of bile in the alimentary canal induces a gaseous condition which interrupts the proper digestive action of the intestines and gives rise to many evils, and its retention in the blood fills it with deleterious matters which poison the brain, and if not removed cause death. These departures from health, with their concomitant diseases, yield readily to remedies when given in conjunction with the hot baths, the skin being forced to eliminate the *materia morbi* which disturbs the harmony of the system. All cases of metritis resulting from diseases of the liver, or from other causes, are cured or benefited by the hot baths, the peripheral nerves and blood vessels being brought into active discharge of their functions and the womb relieved by diversions from the affluxes of nerve force and arterial engorgement.

Gout, rheumatism, syphilis, constipation, muscular contractions, chronic diarrhea, obesity, diseases of the skin, and affections of the nervous system have all been cured or greatly benefited by the use of the waters of the Hot Springs.

Where organic lesions of the vital organs exist there is very little hope of effecting a restoration to health by any known treatment; but such cases may receive benefit from warm bathing, though the hot bath may be contraindicated as too stimulating. In debility resulting from abuse of alcohol and tobacco, the free use of the thermal waters is found to stimulate both the nervous and arterial systems, and to deprive the patient of his vitiated appetite for stimulants and restore his nervous system.

The following is taken from the official circular of information issued by the War Department, and is based on experience gained in the treatment of patients at the Army and Navy Hospital at this place:

Relief may reasonably be expected at the Hot Springs in the following conditions: In the various forms of gout and rheumatism, after the acute stage or inflammatory stage; neuralgia, especially when depending upon gout or rheumatism, metallic or malarial poisoning; paralysis, not of organic origin; the earlier stages of locomotor ataxia; chronic Bright's disease (the earlier stages only) and other diseases of the urinary organs; functional diseases of the liver; gastric dyspepsia, not of organic origin; chronic diarrhea; catarrhal affections of the digestive and respiratory tracts; chronic skin diseases, especially of the squamous varieties, and chronic conditions due to malarial infection.

Approved.

GEO. M. STERNBERG,
Surgeon-General United States Army.

R. A. ALGER, *Secretary of War.*

The following is taken from the official circular issued by the Business Men's League of this city, an organization characterized by conservatism in the advertising statements issued:

However valuable the minerals in solution, it is quite universally agreed among medical men who have studied these waters that their value lies as much in their physical properties as in their chemical properties, and we invite attention to the following summarized opinion of twenty resident physicians of highest standing and long experience in the use of the waters, which give the best idea in comprehensive language of their action:

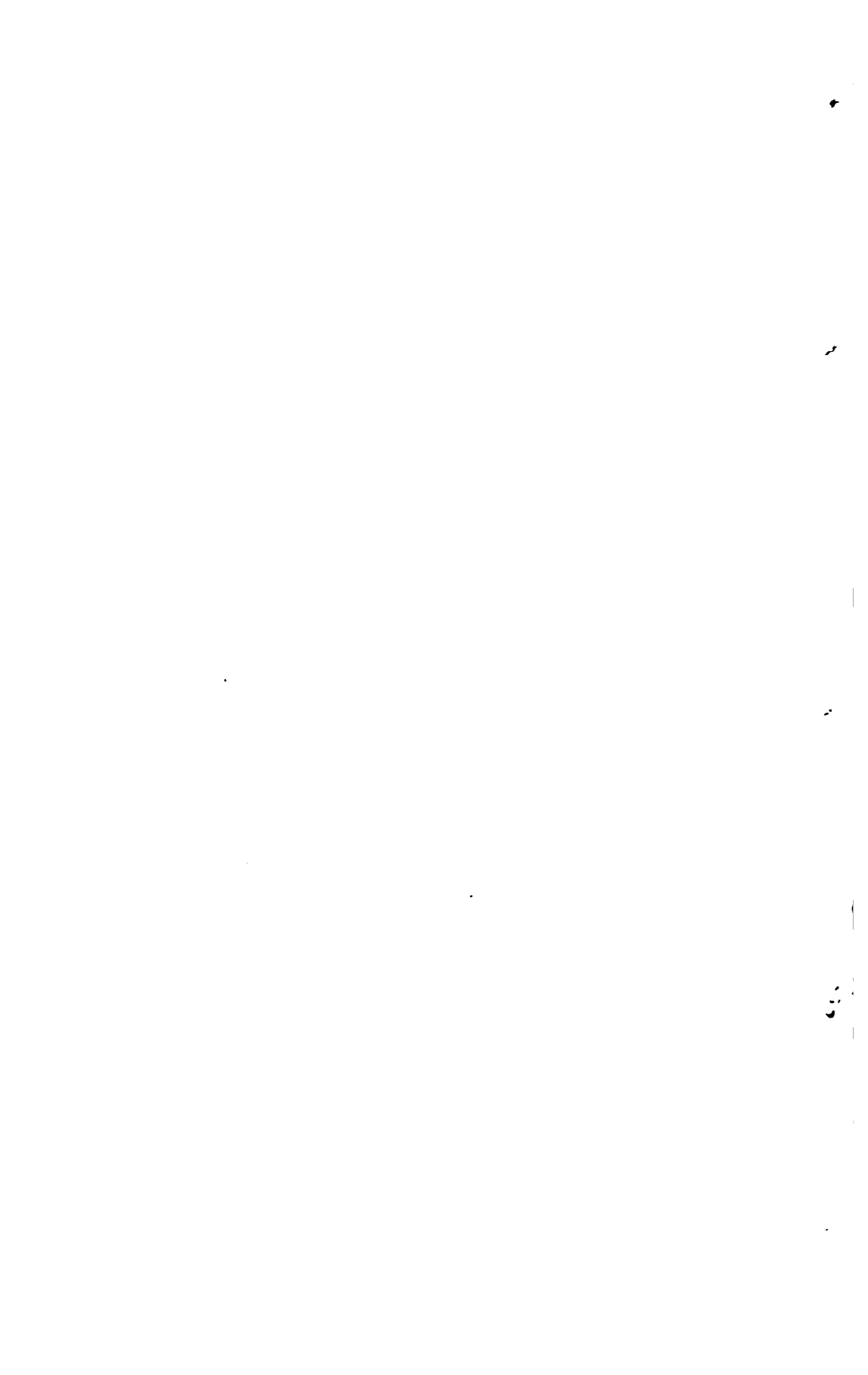
"Their natural heat, their absolute purity, and consequent unparalleled solvent and eliminative action, together with hydrogen and silicon and free carbonic-acid gas in large quantities, the former acting as a powerful tonic and stimulant, and the latter rendering them so palatable and exhilarating that they can be drunk ad libitum, at a temperature at which all known waters either naturally or artificially heated would be nauseating. On account of the remarkable eliminating qualities referred to, all soluble medicines can be administered and tolerated while using these baths in much larger doses than elsewhere; hence are more active and produce beneficial results in less time and greater permanency. Especially is this true with so-called absorbent remedies. Briefly stated, the use of the Hot Springs waters opens the pores and channels for the expulsion of matters injurious to health; dissolves secretions like the crystals of uric acid in rheumatism, making them easy to eliminate; arouses torpid and sluggish secretions; stimulates the circulation, the muscles, the skin, the nerves, and the internal organs; purifies the blood; restores the exhausted; revives the debilitated; and helps build up and renew the entire system. They are administered in the treatment of the sick both internally and externally."

THE FREE BATH HOUSE.

The Government free bath house stands as a monument of noble benevolence and charity extended to the worthy poor of this nation. The dispensation of this boon to suffering humanity without price is recognized as a feature of Government control which receives high commendation, and has elicited expressions of admiration and patriotic pride that this great Government has placed this institution at this famous health resort, where the unfortunate may avail themselves of the benefits of the life-giving waters; thousands upon thousands of



GOVERNMENT BATH HOUSE—FRONT VIEW FROM CENTRAL AVENUE.



men, women, and children in all parts of the country, afflicted with every conceivable disease, can bear testimony to the efficacy of the waters and the benefits derived from their use at this institution, and their humble hearts swell with gratitude and thankfulness at this manifestation of a nation's generosity. The past years of its operation have demonstrated the usefulness and necessity of an institution of this kind. From a small beginning in the year 1878, with rude wooden house and primitive equipment, down to the present time there has been much consideration given this bath house. It has been rebuilt of brick and added to from time to time, which was supposed to be sufficient to keep pace with the demands made upon it. During the year and by authority of the Department an additional annex has been added to the house containing an additional pool for colored men, which gives them two, the same number as the white men, white women, and colored women, making a total of eight pools. There has also been added by the same authority two cooling tanks or storing reservoirs for cooling water, which will prove of inestimable value in acquiring the proper temperature of the baths. In addition to the foregoing improvements, the metal roofs of the building have received two coats of mineral paint, which adds a measure of protection; the interior has also been thoroughly painted throughout in bright ornamental colors, which adds both protection and cheerfulness. These improvements are of a substantial character and have been consummated at a cost of \$1,508.07.

I regret to report, however, that, after all the consideration by the Department and the allotment of funds for this house, it is not complete or sufficient in any requisite. The requirements of the present, and the indicated future growth of the demands on this institution suggest radical changes. In my opinion the house should be entirely remodeled, enlarged, and better equipment and furnishings added. From close observation and study of this subject I am convinced that the present house is a little more than patchwork. The arrangement of the house is not good, the plumbing is deficient, and the ventilation is defective. The pools are small and insufficient in number; the cooling rooms are small and badly lighted. The crowded condition of the house and the number and variety of diseases treated through this medium suggest more pools and the separation, as far as is practicable, of those persons afflicted with loathsome and infectious diseases from those who are more fortunate. It is a charity to grant the boon of these free baths to the indigent; it is right and proper to do it in a hygienic way, adding as much of comfort and refining influence as is consistent with an institution of this character, under such restrictions as will prevent the free bath house from coming in conflict and competition with the lessees of the Government who pay water rents. To allow a mingling of all diseases in the same pools is offensive to a great many, and, while the medical authorities agree that no disease is acquired or transmitted through the medium or agency of the waters, and that the waters are virtually a nonconductor of disease, yet the proprieties suggest that there should be no revulsion of feeling or outrage of sensibilities by compelling a mingling of all diseases in the same pool. As sufficient funds for this purpose can not be made available from the reservation fund. I recommend that an appropriation by Congress of an amount adequate for this purpose be recommended by the Department and suggest the sum of \$25,000 to accomplish this end.

The cost or expense of operating the bath house for the past year has been as follows:

Salary of the manager.....	\$1,020.00
Salary of the male attendant.....	660.00
Salary of the female attendant.....	360.00
Salary of the scavenger.....	120.00
Expense for fuel, light, supplies, etc.....	331.41
Total.....	2,491.41

From the annual report of Luther S. Allard, manager, the following interesting statistics are obtained:

Report for the year ending June 30, 1901.

Applications for free baths.....	6,266
Applications refused.....	556
Tickets reissued on original application.....	3,717
Tickets issued and reissued.....	9,427
White males.....	6,802
White females.....	666
Colored males.....	1,263
Colored females.....	702
Persons benefited, 92.3 per cent.....	5,270
Persons cured and discharged.....	1,136
Average number of persons bathed daily.....	485
Total number of single baths.....	177,025
Net cost per bath, 1.41 cents.	

The manager recommends the employment of a laborer, at \$30 per month, in lieu of the scavenger, to assist in keeping the pools in a cleanly condition.

Owing to the vast number of persons treated at this institution and the variety of ailments and diseases involved, it has created an interest and reputation coextensive with the country, its fame combining both notoriety and popularity; and in this connection there has developed a morbid curiosity on the part of the public to see those poor and unfortunate indulge in their daily ablutions. The bathers have resented vigorously this intrusion upon their privacy to such an extent that it became necessary to establish a rule prohibiting admission to anyone not an actual bather to the bathing department except upon the written permission of the superintendent, who follows the rule of making exceptions only where there is some scientific or public interest, outside of mere curiosity. The exceptions are in the main restricted to physicians, ministers of the gospel, newspaper men, and police officials. Bathing is suspended at 11 o'clock a. m. on Wednesdays of each week, the house and pools thoroughly cleaned and disinfected, and thrown open for public inspection from 2 to 5 o'clock p. m.

A serious disadvantage to this house as at present equipped is the defective heating plant. The present heating apparatus is what is known as the Bolton hot-water heater, which, owing to its limited capacity and the extensive radiation required, is not sufficient to keep all parts of the house comfortable in cold weather. It may have been sufficient when originally put in, but, owing to the additions made to the house, it is not now adequate to comply with the demands upon it. During a portion of last season I was compelled to reenforce it with stoves, which are an objectional inconvenience and obstruction. I recommend that the present plant be condemned and sold and replaced with steam heating boilers.

BATH HOUSES.

There are twenty-four individuals, copartnerships, and corporations owning and operating bath houses who pay water rents to the Government. During the period covered by this report one additional lease has been granted, viz., Nicholas M. Moody, who, in accordance therewith, has constructed a new brick bath house of the capacity of ten tubs according to plans and specifications approved by the Department, which is operated in connection with the Moody Hotel and was opened to the public January 1, 1901. This house has all the latest equipment and furnishings, and is a valuable adjunct to the bathing facilities of that part of the city.

On the site of the old Rockafellow bath house has been erected a new brick bath house with a capacity of eighteen tubs and is operated by Charles N. Rockafellow and conducted in connection with the New Rockafellow Apartment Hotel, under plans and specifications approved by the Department, and was opened to the public May 31, 1901. This house is a model, built on carefully considered plans based on years of experience, is complete in its plumbing and arrangements for light and ventilation, is heated by steam and is well furnished with all appliances for comfortable and luxuriant bathing, and adds another permanent improvement to the bathing facilities of the city.

The monthly reports of the various bath houses provided for in the rules and regulations demonstrates the fact the past year has been one of unusual prosperity with the bathing interests. The increased patronage has materially increased the earnings as a whole. The volume of business for the year has probably exceeded all former patronage; they have shared in the general prosperity of the country; a better feeling pervades the management of the various houses; a more liberal and progressive spirit is manifested in attention given to details of equipment, furnishings, and general accommodations for the comfort and conveniences of the patrons. Improvements for the betterment of the properties are being made from time to time, stimulated by a healthy competition, and if a conservative course is followed which will regulate the granting of new leases to correspond with the legitimate expansion of business and not grant additional leases in excess of the demands for bathing facilities, the bath-house business will result in a remunerative, legitimate, and safe investment.

To attest the growing popularity of Hot Springs as a health resort I beg leave to state that during the fiscal year there were 673,921 baths given. This total includes the baths given at the Government free bath house, viz., 177,025. The total amount received for baths was \$163,358.80. The total amount invested in bath houses can be conservatively estimated at \$500,000. After deducting the water rents, operating expenses, repairs, taxes, insurance, etc., it is demonstrated that under present conditions the bath-house business can be considered a good investment.

The violation of the rule prohibiting drumming patrons to the various bath houses for a consideration is the prolific source of much annoyance and vexation to this office. That there are occasional violations of this rule seems to be indicated by suspicious circumstances and corroborative evidence, yet there has been no case in which I felt warranted, with the evidence at hand, to make recommendation for punishment. The strict enforcement of Department rules as far as

has been practicable with present facilities has had some restraining influence and the practice has been materially reduced. This is especially true during the busy season. The influx of visitors increases the patronage and in a proportionate degree diminishes the incentive for resorting to this means to get business, but as the tide of visitors recedes and competition becomes keen there is a manifest disposition on the part of some to circumvent the rules and regulations in some manner to secure patronage.

While there may be cases of drumming, I am convinced that many of the accusations are made by managers who find themselves falling behind in the race for business and who, without giving proper credit for the energy, push, and personal effort of their competitors, and failing to accuse themselves of a lack of these qualities make a general charge of drumming against their more successful competitors. The superintendent's time is frequently imposed upon by this class of managers, who point out suspicious circumstances and make grave insinuations against some one of their neighbors, which upon investigation generally results in a perfectly legitimate transaction. I am also convinced that no rule will apply in a prohibitive way in preventing certain forms of reciprocal relations between bath-house owners and those engaged in various other pursuits whereby certain bath houses are recommended to the visitor. Personal friendship, mutual business relations, positive conviction as to superiority of this or that house, obligations of secret fraternal orders, location, family ties, and many other equally potent factors operate to the advantage of houses wherein no direct remuneration is received, and which frequently bears the aspect of drumming when it is simply the exercise of the prerogative of the citizen to recommend certain houses.

The rule prohibiting drumming for bath houses was established for the protection of both the public and bath houses and the faithful compliance with which operates more to the benefit of the bath houses than the public, which fact ought to be an incentive to rigidly adhere to it as the commissions paid must come directly from their own pockets. So far as the public is concerned, when the Government fixes the maximum charges for baths and establishes the attendants' fees, furnishes the water and establishes all other rules and regulations for their benefit, it would seem that it had accomplished the full measure of protection necessary. If we accomplished the total suppression of bath-house drumming it would not materially diminish the real evil of drumming. While drumming or soliciting, in the general acceptation of the term, is considered neither immoral nor illegal when applied to the usual and ordinary business transactions, it becomes odious and reprehensible in the extreme when applied to the nefarious practice of trafficking in the sick and debilitated people who come here for relief.

The serious phase of the drumming evil is drumming to doctors, the regulation of which belongs principally to the municipality. Whenever the curse of doctor drumming can be entirely eliminated other forms of it will fade into insignificance as a natural consequence, as they are mere incidents or adjuncts to it. The solution of this problem is considered difficult owing to the decisions of the courts, which recognize it as legal under the laws of the State.

The evil effects of doctor drumming lies in the deflection of the patient from the honorable, conscientious and competent physician to

some incompetent, conscienceless practitioner whose ignorance and extortion works almost irreparable injury to the sick, and much of the success of this kind of drumming is consummated through misrepresentation and falsehood. The growth of public sentiment against it, and the dissemination of warning information and intelligent directions before the visitor leaves home will gradually work its destruction. Much of the open and obnoxious forms of drumming which existed formerly have been replaced by the indirect and more refined systems, which, however, in their effects are none the less iniquitous. Time and spread of useful information will reduce the practice to a minimum.

A measure of relief from this demoralizing practice can be obtained by an amendment to the State law regulating the practice of medicine in the State.

Another, and probably the most effective, would be a supplementary act of the legislature whereby the United States will obtain complete jurisdiction over the reservation. If this is done, and the sovereignty of the State is waived as regards jurisdiction over this reservation, the Government, through its machinery, can work the complete and total annihilation of this evil.

The charge for baths at the different bath houses are fixed by the Secretary of the Interior, and no house is permitted to charge more than a said rate. They are subject to revision and rerating by the Secretary when in his judgment it may be deemed necessary. The rule followed heretofore has been a scale of prices in accordance with the equipment and accommodation of each house. The rates as at present fixed by the Department are unequal in their advantages and ought to be revised, and I renew my recommendation made in reports to the Department heretofore.

The following table of rates for course of twenty-one baths and for single baths are the rates at present in force:

Name of bath house.	Course of 21 baths.	Single bath.	Name of bath house.	Course of 21 baths.	Single bath.
Arlington	\$10.00	\$0.50	Ozark	\$4.00	\$0.25
Alhambra	5.00	.30	Ozark Sanitarium	6.00	.35
Avenue	6.00	.35	Park	8.00	.45
Eastman	10.00	.50	Palace	7.00	.40
Great Northern	7.00	.40	Rockafellow's	6.00	.35
Hale	7.00	.40	Rector	7.00	.40
Horseshoe	5.00	.30	Rammelsberg	3.00	.20
Hot Springs	7.00	.40	Superior	6.00	.35
Imperial	8.00	.45	St. Joseph's Infirmary	6.00	.35
Lamar	7.00	.40	Waverly	6.00	.35
Magnesia	5.00	.30	Moody	8.00	.45
Maurice	7.00	.40			

The following table is given, showing the different individuals and corporations now holding leases for hot water from the Government reservation, together with the date and expiration of said leases:

Name of bath house.	Lessees.	Tubs.	Date of lease.	Expiration of lease.
Alhambra	Alhambra Bath House Co	40	Feb. 28, 1894	Feb. 28, 1914
Arlington	Arlington Hotel Co	40	Mar. 3, 1892	Mar. 2, 1912
Avenue	Avenue Hotel Co	20	Feb. 17, 1898	Dec. 31, 1902
Ozark Sanitarium	Butterick Publishing Co.	8	Sept. 16, 1898	Sept. 16, 1906
Eastman	New York Hotel Co.	40	May 12, 1892	May 12, 1912
Great Northern	Curnel S. Williamson	19	May 25, 1897	May 15, 1912
Hale	Roots & Eastman	26	Jan. 1, 1893	Dec. 31, 1907
Horseshoe	D. Fellows Platt	30	Jan. 1, 1895	Dec. 31, 1909
Hot Springs	Mark J. Smith	16	Jan. 1, 1893	Dec. 31, 1902
Imperial	Hot Springs Medical Co.	4	July 24, 1894	July 24, 1904
Lamar	Fred N. Rix and J. L. Barnes.	25	Jan. 1, 1892	Dec. 31, 1906
Magnesia	M. C. Tomblor and D. C. Buckstaff.	40	Jan. 1, 1897	Dec. 31, 1916
Maurice	Chas. B. Platt	30	Jan. 1, 1895	Dec. 31, 1909
Ozark	Maurice, Convers & Maurice.	21	Jan. 1, 1897	Dec. 31, 1916
Palace	I. W. Carhart and F. B. Latta.	22	Jan. 1, 1892	Dec. 31, 1902
Park	Samuel W. Fordyce	23	Jan. 12, 1893	Dec. 31, 1906
Rector	Park Hotel Co	40	May 12, 1892	May 12, 1912
Rockafellow's	Henry M. Rector.	12	Apr. 16, 1894	Apr. 16, 1904
St. Joseph's Infirmary	Chas. N. Rockafellow	18	Lease expired	
Sumpter	Sister Mary Aloysius.	4	Dec. 31, 1896	Dec. 31, 1901
Superior	John J. Sumpter	8	Mar. 7, 1894	Mar. 7, 1904
Waverly	Robert Proctor and Chas. N. Rix.	16	Sept. 15, 1896	Sept. 14, 1906
Rammelsberg	New Waverly Hotel Co	20	Mar. 24, 1893	Mar. 24, 1913
Moody	Jeanette Hogaboom, Aaron H. and Milo R. Buckstaff.	18	Jan. 1, 1899	Jan. 1, 1909
	Nicholas M. Moody	10	July 1, 1900	June 30, 1910

The lease of Charles N. Rockafellow expired June 30, 1901.

RECEIPTS AND DISBURSEMENTS.

RECEIPTS.

The total revenues derived from this reservation are received on account of water and ground rents and are collected in advance during the first five days of each quarter and remitted to the Assistant Treasurer of the United States at St. Louis, Mo., to be placed to the credit of the fund for the "Protection and improvement of the Hot Springs Reservation, Arkansas," under the provisions of the act of Congress approved June 16, 1880, and embraces all amounts received from 25 bath houses having in operation 542 tubs, at an annual rental of \$30 per tub for each tub under lease, and \$2,500 per annum rental for the ground occupied by the Arlington Hotel and \$30 per annum for extra water supplied to the New York Hotel Company, aggregating a total for the fiscal year of \$18,310, as shown by the following table:

Name of bath house.	Tubs.	Amount.	Name of bath house.	Tubs.	Amount.
Alhambra	40	\$1,200	Palace	23	\$690
Arlington	40	1,200	Park	40	1,200
Avenue	20	600	Rammelsberg	18	540
Eastman	40	1,200	Rector	12	360
Great Northern	19	570	Rockafellow's (2 months)	18	90
Hale	26	780	St. Joseph's Infirmary	4	120
Horseshoe	30	900	Superior	16	480
Imperial	25	750	Sumpter	4	120
Hot Springs	16	480	Waverly	20	600
Lamar	40	1,200	Hot Springs Medical Co.	4	120
Magnesia	30	900	New York Hotel Co. (extra water)		30
Maurice	21	630	Arlington (ground rent)		2,500
Moody (2 quarters)	10	150			
Ozark	22	660			
Ozark Sanitarium (Cheshire)	8	240			
			Total	542	18,310

DISBURSEMENTS.

The disbursements, including all amounts paid on account of salaries, incidental expenses, and the fixed charges or regular expense of operating and maintaining the reservation, together with the amounts disbursed by the Department as evidenced by vouchers and pay rolls on file in the Department, have been as follows:

Salaries per annum:

Superintendent	\$2,500.00	
Clerk to the superintendent.....	840.00	
Messenger at the superintendent's office.....	180.00	
		\$3,520.00
Manager of the free bath house	1,020.00	
Male attendant at free bath house.....	660.00	
Female attendant at free bath house.....	360.00	
Scavenger at free bath house.....	120.00	
		2,160.00
Reservation waterman.....	600.00	
Night policeman on the reservation.....	600.00	
Day policeman on the reservation.....	480.00	
		1,680.00
Eight foresters and gardeners, at \$480.....		3,840.00
Amount disbursed on account of incidental expenses, such as repairs to buildings, springs, fountains, fuel, lights, city water for buildings, sprinkling, etc., ice, horse feed, shoeing and bedding, tools, sand, cement, plumbing supplies, etc.....		2,599.36
		13,799.36
Total amount disbursed from this office.....		3,789.28
Amount disbursed by the Department for improvements.....		1,853.48
Amount disbursed by the Department on account of the analysis of the water		

Total disbursements from the Hot Springs Reservation fund 19,442.12

The number of persons regularly employed on this reservation are 18, and as at present constituted embrace a corps of faithful and efficient public servants who have been selected with special care as to fitness and qualification for the several positions filled by them in accordance with the instructions of the honorable Secretary of the Interior, which plan is deserving of the highest commendation, the wisdom of which is demonstrated in the efficiency and improvement of the public service. I am greatly indebted to each of them for the faithful discharge of their duties and their fidelity to the trust imposed in them. Emergencies have arisen where their services have been necessary outside of regular hours, yet they have promptly responded with alacrity at all times, day or night, and often under trying ordeals, and am gratified to report that the relations existing between the superintendent and all subordinates are of the most pleasant and cordial character.

The personnel of reservation force as at present constituted, together with compensation, duties, and Congressional district from which appointed, are as follows:

Name, occupation, and duties.	Salary per year.	Congressional district.
Martin A. Eisele, superintendent.....	\$2,500	Sixth Arkansas.
B. Frank Bayley, clerk and assistant to the superintendent	840	Do.
James Daniels, messenger at superintendent's office	180	Do.
Duties are to act as messenger to the superintendent and have charge of the furnace and lights at the office and residence buildings, and of the barns.		
Luther S. Allard, manager free bath house	1,020	Do.
Duties are to have general charge of the free bath house, receive applications for free baths, collect tickets, and see that the rules and regulations are carried out, together with such instructions as he may from time to time receive from the superintendent.		

Name, occupation, and duties.	Salary per year.	Congressional district.
A. E. Torrence, male attendant free bath house Duties are to have charge of and keep in a cleanly condition the pools and bathing department of the bath house, to perform such other duties as may be required in and about the bath house, and to act as manager in his absence.	\$660	Sixth Arkansas.
Carrie Stone, female attendant free bath house Duties are to have charge of and keep in a cleanly condition the pools and woman's department of the free bath house.	360	Do.
John H. Jones, scavenger at free bath house Duties are to remove all rubbish, paper, and rags, and to preserve sanitary condition under direction of the manager.	120	Do.
Christopher C. Cooper, day policeman Duties are to have general supervision over all Government property from 9 a. m. to 9 p. m., see that no stock or persons commit depredations on the reservation, observe and report all violations of Department rules and regulations, give general information to strangers concerning the reservation, and make arrests when necessity requires.	480	Do.
George Burrough, night policeman Duties are the same as those of day officer from 9 p. m. to 9 a. m.	600	Do.
Ed Hardin, waterman on reservation Duties are to have charge of the distribution of the hot water and see that each bath house gets the amount allotted to it, and act as foreman of foresters and gardeners.	600	Do.
Charles Schmike, forester and gardener	480	Do.
Willis L. Shaw, forester and gardener	480	Do.
James Horan, forester and gardener	480	Do.
Jonathan A. Jordan, forester and gardener	480	Do.
Peter Nelson, forester and gardener	480	Do.
Dan T. Richardson, forester and gardener	480	Do.
John Usery, forester and gardener	480	Do.
Patrick J. Dugan, forester and gardener Duties of foresters and gardeners are to cultivate and care for shrubbery and flowers, keep up roads, drives, and walks, and make and maintain other improvements on the reservation, under direction of the superintendent.	480	Do.

THE CREEK ARCH.

Pursuant to custom, I have recently made personal inspection of this work, and it is gratifying to report its present good condition. The method of examination adopted is to equip four of our force, including the superintendent, with high-top rubber boots and lanterns and enter the arch from the north end and walk the entire distance, emerging at the southern exit. Inspection is made of the crown of the arch and the side walls where they rest on the primitive rock foundations. The repairs previously made on defective points, made necessary by the force of the currents that undermined the walls, have proven effective and no further repairs are necessary at this time. Some sewer discharges were found emptying into the arch, the connections of which were surreptitiously made, and reports thereof promptly made to the municipal authorities, who have corrected the same. This arch was constructed during the years of 1883 and 1884, and extends from the junction of Whittington and Park avenues on the north to Malvern avenue on the south, a distance of 3,500 feet. It is 17 feet wide, with an average height at the crown of 10 feet, and cost \$136,744.78. It not only carries the waters of the Hot Springs Creek, but is the receptacle for all surface drainage of that part of the city contiguous to it. The construction of this arch has proven of incalculable benefit to this resort, as the open creek which formerly traversed the length of Central avenue marred the appearance of the street. This avenue is now a wide perfect street from curb to curb, and very few of the thousands of visitors who come here annually are aware of the presence of this immense conduit.

Report of Superintendent of the Hot Springs Reservation, 1901.



SECTION OF HOT SPRINGS CREEK ARCH.

This arch, constructed by the Government in 1883-84 over Hot Springs Creek, at a cost of \$136,744.78, extends along the reservation from the junction of Whittington and Park avenues on the north to Malvern avenue on the south, a distance of 3,341 feet.



IMPROVEMENTS.

The improvements made during the year and the additions made to the permanent equipment of the reservation for which allotments have been made by the Department consist of the following:

The construction of the uncompleted portion of West Mountain road to the summit, which consists of a series of loops or switchbacks from the road proper to the summit, which covers a distance of 2,600 feet, with an average grade of 6 per cent. Along the summit we have constructed a road 3,600 feet in length, at a mere nominal cost, by removing trees, stumps, and underbrush and doing a small amount of grading. The completion of this road gives a fine view of the surrounding country for many miles, which for picturesque scenery is unexcelled. I regret, however, that the usefulness of this road is much retarded by the approaches or entrances at both Canyon and Hawthorne streets, which are built upon grades which renders the road almost inoperative except for light vehicles and horseback parties.

During the year Whittington Park Lakes were drained and the deposit of washings from the hill sides and decomposed vegetable mass were removed by hauling the same out and spreading upon the park grounds, which cleaned the bottom of the lakes and at the same time enriched the soil with this valuable fertilizer.

During the period covered by this report there has been constructed two new cooling tanks for storing water at the free bath house. Their capacity is 10,000 gallons, which is a valuable addition to the equipment of this institution, thereby enabling the employees to acquire proper temperature in the pools with greater facility.

During this period also, and in connection with the official analysis of the waters, all springs not heretofore provided for have been walled up with brick and arches sprung over the top, with manhole entrances to permit of examination and repairs to connections, etc, thereby protecting them from pollution and making them accessible at any time.

Under the allotment for painting, I beg to state that the exterior wood and iron work of all the Government buildings have been thoroughly painted, also the interior of all that was deemed necessary. The work includes the painting of the metal roofs of the superintendent's residence, superintendent's office, and free bath house; also the roofs of all pavilions, and fences. The interior and exterior of these buildings have been painted in durable, bright, and ornamental colors, which adds much to the protection and ornamentation of these properties.

A valuable addition to our equipment has been the purchase of a wagon and team of mules, which enables our force to accomplish much valuable work which the lack of this equipment heretofore retarded.

Many improvements of minor importance, though valuable to the reservation and its administration as a whole, have been accomplished during the year, such as the relaying of pipe lines, repairs to free bath house, barns, pavilions, roads, walks, and parks; the addition of soil, shrubbery, flowers, bulbs, etc., besides many items of small detail deemed necessary in the protection and improvement of the reservation.

The total cost of all improvements for which allotments have been made amounts to \$3,804.93, exclusive of the official analysis.

RECOMMENDATIONS.

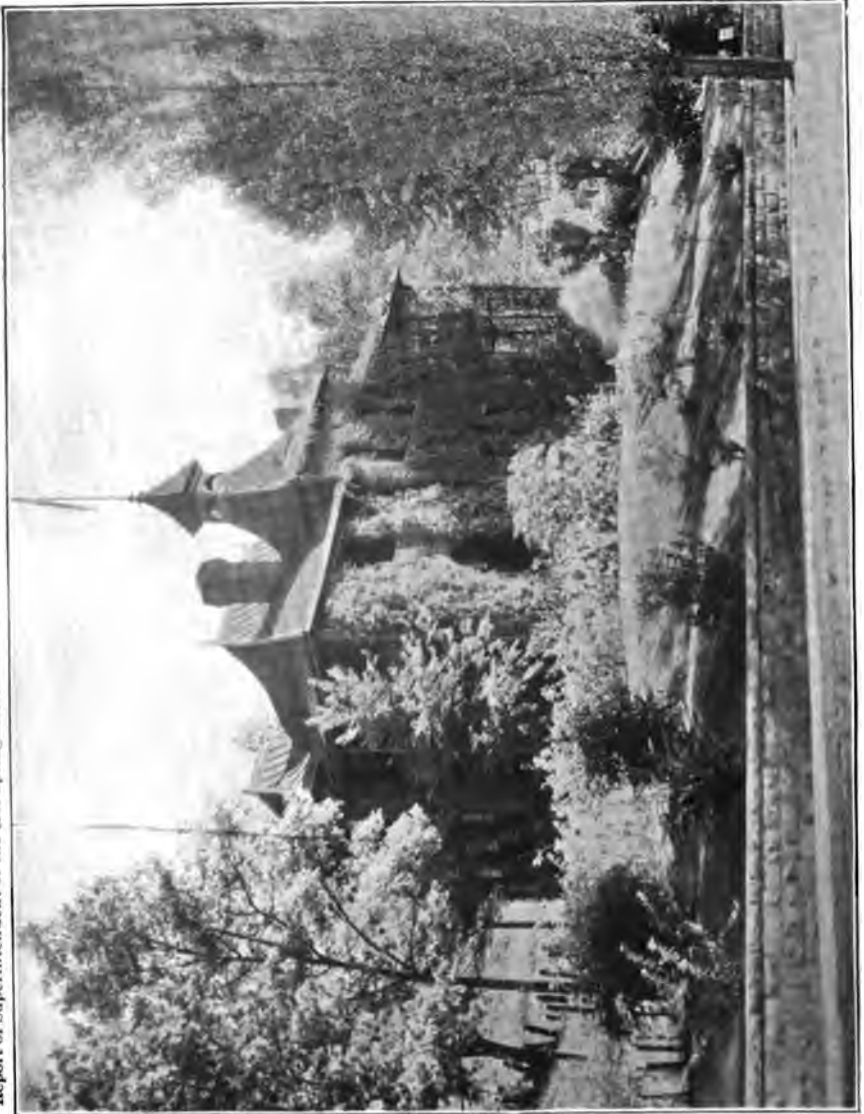
Hot Springs is an interest of national concern. It is a national health resort, and the improvements made here are as much for the benefit of the country at large as for the small contingent who permanently reside here. It is practically a Government resort, and as such entitled to consideration and appropriation sufficient to beautify and adorn its surroundings, so that its environments, through its ornamentation and general attractiveness, will form a feature which will aid and assist in the treatment of diseases. The total income from water and ground rents is now nearly consumed by the expense of operating the reservation and making necessary repairs, leaving only a small balance each year for permanent improvements.

There has been expended on this reservation on all accounts from 1878, the year the Government assumed control, to and including 1901, \$614,466.23. This expenditure includes all items of expense, viz, improvements, salaries, lights, fuel, water, equipment, feed, and incidentals, and also includes the expense of the Hot Springs Commission, viz, \$72,675.20, which became necessary in laying out the reservation and establishing a permanent resort. The total income derived from water and ground rents and sale of Government lots during the period amounts to \$472,470.58, leaving only \$141,995.65, which amount represents the actual and direct appropriations of the General Government. Much of the amounts expended for improvements represents the sums expended on details of equipment made necessary in the successful operation of the reservation, viz, in securing, developing, and protecting springs; laying pipe lines and connections to utilize the flow; constructing storage reservoirs for the distribution of the hot water; constructing free bath house, residence building, office building, barns, etc.

It will be seen that this reservation has been self-sustaining, with the exception of the amount above stated. While the expenditure may seem to be liberal, yet considering the topographical features, the amount of work necessary to develop and beautify the reservation, and to furnish a system of improvements appropriate to the nature and extent of the public interests involved, I am convinced that the plans are only half completed and that an expenditure of an amount sufficient should follow, to the end that all details contemplated under original plans may be consummated. The extension of the system of improvements inaugurated by Capt. Robert R. Stevens, according to the general plans outlined by him, is recommended. In support of his recommendations Captain Stevens in his report says:

The expenditures heretofore made by the Government on its interests at Hot Springs have been directed to the development of the means for the bathing interests. These are now in effective condition, and the rapid extension of the useful field of its waters and the investment of capital from the most remote sources of the country show the advancement made by Hot Springs toward taking the place accorded it by the Government as a national sanitarium. This progress, however, has been due to the result of the use of its waters alone; the sanitary resources of its mountains are still undeveloped, and to this may be attributed the recognized growing tendency to regard Hot Springs as a winter resort only. It is situated close under the shelter of the mountains, which rise on every side to about 400 feet above its main valley, and from summit to foreground present continuous woods of elm, oak, pine, and other forest reserves. The low temperature and mountain air of these heights afford advantages which naturally belong to Hot Springs, and would, in connection with the waters and climate of the lower land, complete its features as a

Report of Superintendent of the Hot Springs Reservation. 1901.



RESIDENCE OF THE SUPERINTENDENT ON THE HOT SPRINGS RESERVATION.

Report of Superintendent of the Hot Springs Reservation, 1907.



WHITTINGTON AVENUE LAKE RESERVE, MAIN ENTRANCE.



health resort for all seasons. The impression referred to evidently grew as the interests of the city built up in the valley, and rows of buildings and excavated bluffs closed in the town and resort of Hot Springs from the wooded landscape of which it once formed a part. All free space in the valley has been gradually taken up by private improvements, leaving no ground available for purposes of public recreation in connection with the springs except that within the Government lines. Improvement of the public grounds of Hot Springs, with a view to their application to the use for which they were reserved by the Government, is altogether recommended as a means of developing the value of the Government property of the reservation and at the same time of serving an important public interest in giving full scope to the sanitary agencies of the Hot Springs water and climate.

Looking into the future and giving consideration to the interest and welfare of the vast number who will visit this resort for health and pleasure in the years to come, it is important that more appropriation be made for the Hot Springs. In my annual report for 1900 I had the honor to refer to this subject in the following language:

"In my opinion much of the vast area of this reservation which is available for beautiful mountain parks can not be reached and improved unless special appropriations by Congress are made. To indicate the extent of future improvements necessary to cover the entire reservation, I append the following table giving the size in acreage of each reservation:

	Acres.
Hot Springs Mountain Reservation	264. 93
North Mountain Reservation	224. 74
Sugar Loaf Mountain Reservation	129. 02
West Mountain Reservation	281. 94
Whittington Avenue Reservation	11. 00
Total	911. 63

"To apply the same system of improvements in the future as in the past will, I presume, be the policy of the Government, and to continue the work already begun these special appropriations ought, in my opinion, to be recommended by the Department, as the prospect of reaching very much of it within the narrow margin of revenues derived from this reservation is very remote."

To give an intelligent estimate of the amount necessary to carry out this plan in completeness I respectfully submit the following enumeration of items and the estimated amounts which I believe to be approximately correct to complete in detail the general plan outlined:

Roads and drives	\$51, 000
Walks, footpaths, etc	1, 360
Drainage system	11, 400
Park construction	88, 000
Buildings, casinos, pavilions, observatories, etc	72, 000
Extension of creek arch	125, 000
Total	348, 760

Justified by the achievements of the past and anticipating the future glory and renown of Hot Springs as a health resort I respectfully recommend for the consideration of the Department, measures by which the active prosecution of this important public work upon the basis outlined can be consummated, and as the reservation fund derived from the surplus of water and ground rents is inadequate to accomplish this purpose I respectfully urge Congressional appropriation of amount sufficient to carry out these plans in their general features.

The foregoing recommendations and estimates contemplate direct and specific Congressional appropriation. The recommendations I shall make for contingent expenditures within the revenues of the

reservation fund will necessarily be only what is actually required and consistent with the funds available.

The unexpended balance remaining in the Treasury to the credit of the fund for the "Protection and improvement of the Hot Springs Reservation," on June 30, 1901, was \$78.76; the estimated surplus in excess of the fixed charges of operating the reservation for the coming year is \$5,000; making a total of \$5,078.76, which will be available for improvements during the year. So many improvements suggest themselves as important that it seems difficult to particularize which is the most necessary. As the amount of funds available is limited it suggests a prudent and thoughtful consideration governing allotments for the coming year. The following recommendations are made with this end in view, as necessary for the protection of property and necessary to the public service.

It is essential to repair the roads and drives already constructed. To such an extent have demands grown upon our force that we are unable, with the means at command, to keep pace with them, and are unable to reach all of them. The roads are washed and narrowed at places by the swift-running mountain streams, and need attention. The importance of providing sufficient drainage and suitable gutters at points along the roads to resist the force of the water currents is a matter of much concern. The roads also require a coating of cement gravel over almost the entire line. Many of the wooden culverts are in such defective condition that they should be replaced with stone. The roads should be widened at certain points, which can be accomplished by going into the banks and setting the gutters back. There are some depressed places over the entire line, which require regrading to provide necessary watershed. At many points along the line of roads there are retaining walls built of pine logs, which have reached such a stage of decay that they should be removed and replaced with stone and earth embankment; many of the turns are short and sharp and should be widened and lengthened. All of this work can be accomplished by the use of our regular force, assisted by some additional labor and the employment of some additional teams.

It is also important that new barns and wagon sheds be constructed. The present barns are mere makeshifts, are temporary and unsightly structures which occupy a conspicuous point in the residence grounds, and should be relocated and built of stone.

The concrete walks on the reservation need repairs in various places, owing to defective work when the walls were originally laid, which defects have become very conspicuous and need attention.

I would also recommend the extension of the concrete walk on Fountain street from its present terminus to the Fountain street (Happy Hollow) entrance to the Hot Springs Mountain. This is an important promenade which should be completed.

It is important that additional soil and fertilizer be placed at various points within the park area of the Hot Springs Mountain, as the natural soil found on these mountains is thin and weak in fertility, and it becomes necessary at various times to reenforce it with loam of more productive strength in order to grow the grasses and shrubbery. It is also important that additional bulbs, flowers, and shrubs of the fine varieties be purchased for the parks.

I recommend that the present hot water heating system at the free bath house be replaced with a steam heating plant, the necessity of

which I have pointed out under that part of this report referring to the free bath house.

Recapitulation of recommendations, including estimates.

Repairs to roads.....	\$1,500.00
Graveling roads with cement gravel (5,400 linear feet).....	675.00
Construction of new barns.....	640.00
Repairs and construction, 500 square feet concrete walk.....	75.00
Constructing 5,976 square feet concrete walk (Fountain street extension)...	896.40
Purchase of soil, shrubbery, grass seed, etc.....	150.00
Steam heating plant at free bath house.....	900.00

In addition to the foregoing recommendations I desire to renew my recommendation contained in my annual report of 1900 urging a sale of the remaining unsold Government lots, 157 in number, and respectfully urge that said sale be ordered for March, 1902.

ADMINISTRATION.

The duties devolving upon the superintendent are varied, and must be performed with discretion and patience. He is charged with the responsibility and care of the entire reservation, its protection and improvement, the enforcement of the rules and regulations governing bath houses, the management of the free bath house, and supervisory control over all employees.

All manner of appeals are made to him for adjustment of matters of which he is supposed to be the arbiter, many being matters of police regulation belonging to the municipality, over which the superintendent has no control. A large percentage of the visiting public, knowing this reservation to be under Government control, lodge complaints against managers and attendants of the various bath houses for some imaginary grievance which often fail of substantiation when investigated. This is accounted for by the fact that most of them are sick and in a highly nervous state, which leads them to magnify every real or imaginary neglect.

The rule prohibiting drumming to bath houses, when it is considered that the city government sanctions and licenses this practice, is a veritable nightmare to the superintendent and his subordinates, especially when the Department requires absolute proof of guilt. With this exception, the supervisory control over the bath houses has met with hearty cooperation from the owners and managers, and they yield prompt obedience to all other rules and regulations. The present year has been one of unusual prosperity for the springs, and a better feeling prevails, which promotes the reciprocal relations of cooperation between the Government employees and the lessees of the Government.

Satisfactory progress has been made in the care and cultivation of the grounds; the parks present a more attractive appearance; the timely rains have promoted the growth of the grass, flowers, and shrubbery; the system of the distribution of the hot water has been in many instances improved, thus facilitating the flow and increasing temperatures.

Much useful information has been disseminated through the medium of this office. Its convenient and accessible location renders it, in a sense, a bureau of information. Much interest is taken by the visiting public in the administration of this reservation by the Govern-

ment, and the expressions of opinions are, in the main, extremely laudatory of the work accomplished. Judging the future by the patronage and interest accorded in the past, I conclude that the future of Hot Springs as a health resort is assured and that it will continue to grow in popular favor.

I have the honor to be, very respectfully, your obedient servant,

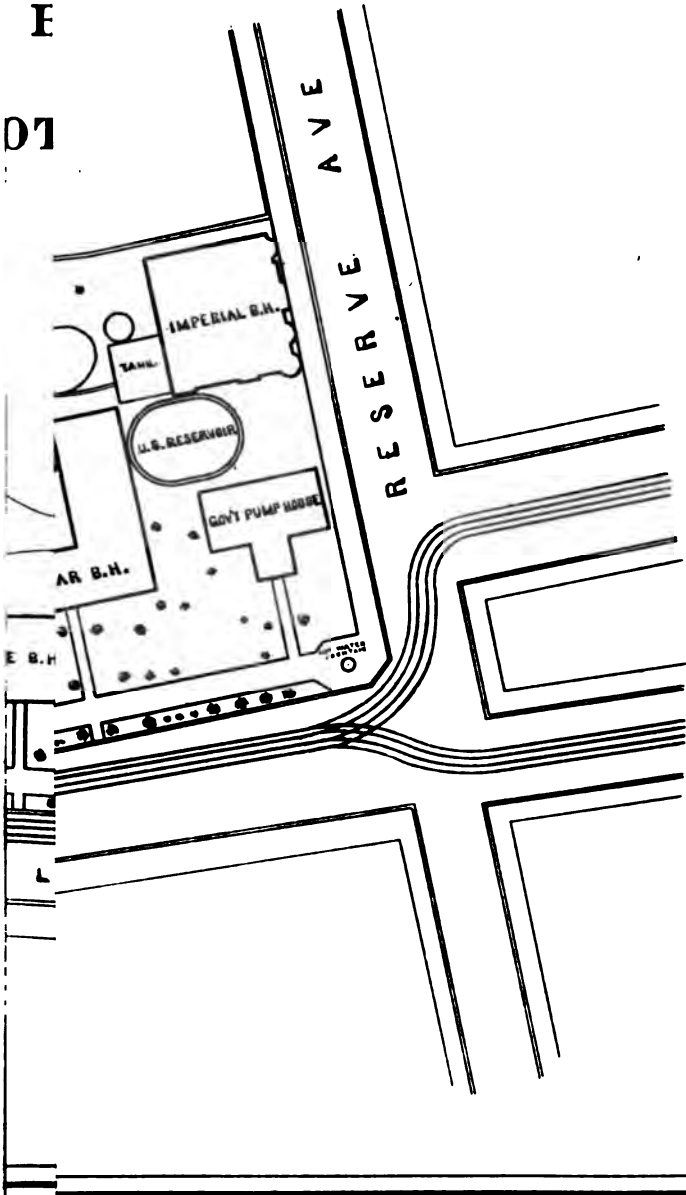
MARTIN A. EISELE,
Superintendent.

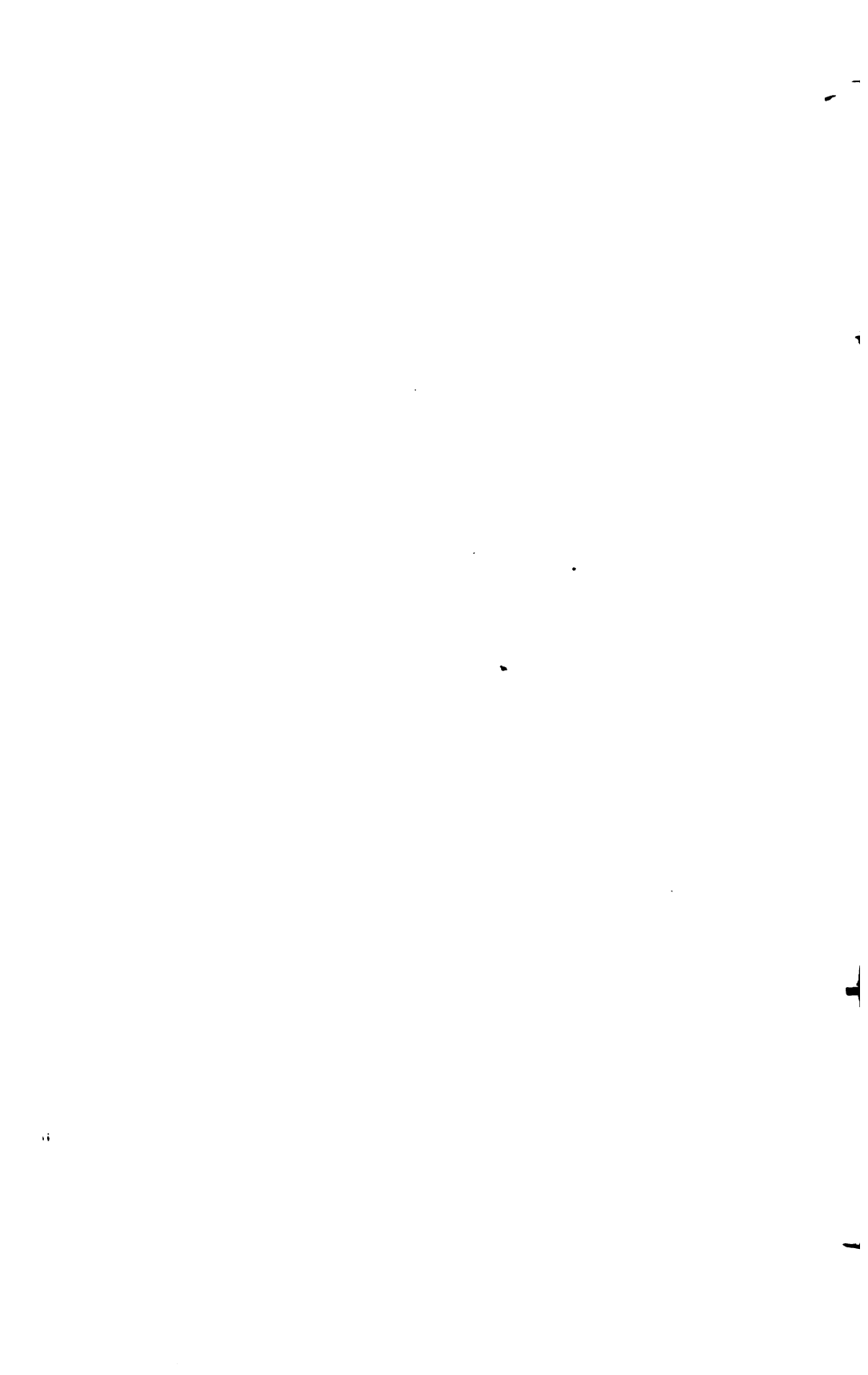
The SECRETARY OF THE INTERIOR,
Washington, D. C.

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ANNUAL REPORT
OF THE
MINE INSPECTOR FOR INDIAN TERRITORY.

SOUTH MCALESTER, IND. T., *June 30, 1901.*

SIR: In compliance with the requirements of the act of Congress approved March 3, 1901, entitled "An act for the protection of the lives of miners in the Territories," I have the honor to submit to you my eighth annual report upon the condition of the coal mines in the Indian Territory for the year ending June 30, 1901.

Very respectfully, yours,

LUKE W. BRYAN,
Mine Inspector for the Indian Territory.

Hon. ETHAN ALLEN HITCHCOCK,
Secretary of the Interior, Washington, D. C.

The output of coal in the Indian Territory for the current year has again considerably increased, in addition to which large improvements are now being made which promise a still further increase in production in the following year. A large number of leases which had been applied for under the Curtiss bill have since been perfected and new leases are constantly being applied for. There is at the present writing quite an interest being felt in the coal business in the Indian Territory from all the other States. The extension of various lines of railroad is opening up new fields. It is quite a noticeable fact, however, that all the veins that have recently been opened and the new portion of the veins previously worked in other parts of the Territory are all of a much steeper pitch than anything that has heretofore been worked. For many years it was thought that these steep-pitched veins could not be worked successfully, but with improved methods many of the veins that heretofore were considered too steep to be worked are now being successfully operated. It is true that the advanced price of coal is a factor in making the working of these steep-pitched veins a success, but everything tends, however, in the direction of more extended operations in these steep veins.

Another feature of the new operations is that deeper shafts are being sunk, and there is no doubt that the coal mining of the future in the Indian Territory must be done through the use of much deeper shafts than have previously been sunk.

I regret to have to report an increased number of accidents for the current year, but these may be easily accounted for by the fact of the very many new openings, it being my experience that accidents are much more frequent in this Territory, where fire damp and explosive coal dust exist in such dangerous quantities during the sinking of new shafts and slopes and before it is possible to put the mine in the very best condition for eliminating these dangers.

Output of coal for the Indian Territory for the years ended June 30, 1900 and 1901, by companies.

	Name of producer.	Output (tons).	
		1900.	1901.
1	The McAlester Coal Co. ¹	509,738	466,689
2	Atoka Coal and Mining Co.....	196,736	309,194
3	Osage Coal Mining Co.....	269,580	258,893
4	Southwestern Coal and Improvement Co.....	115,202	185,064
5	McAlester Coal and Mineral Co. and Eastern Coal and Mining Co.....	74,636	173,817
6	Wilburton Coal and Mining Co.....	130,689	182,791
7	Kansas and Texas Coal Co.....	178,697	121,198
8	Mexican Gulf Coal and Transportation Co.....	76,110	96,052
9	Milby & Dow Coal and Mining Co.....	48,121	77,243
10	McAlester Coal Mining Co.....	21,600	75,540
11	Devlin-Wear Coal Co.....	32,936	67,696
12	Perry Bros.....	20,312	66,450
13	Ola Coal and Mining Co.....	31,685	66,000
14	J. B. McDougall.....	23,317	56,406
15	Halley Coal and Mining Co.....	33,513	55,101
16	Samples Coal and Mining Co.....	24,530	39,026
17	Ozark Coal and Railway Co.....	37,276	36,367
18	D. Edwards & Son.....	13,909	26,452
19	Choctaw Coal and Mining Co.....	1,000	24,936
20	R. Sarlls.....	980	16,667
21	Turkey Creek Coal Co.....	2,358	9,400
22	Wm. Busby-Baker Mines.....	9,713	9,119
23	St. Louis-Galveston Coal Co.....	1,200	8,550
24	M. Perona.....	3,616	3,307
25	Caston Coal Co.....	700	3,224
26	McAlester and Galveston Coal Mining Co.....		2,700
27	H. Newton McEvers.....	100	2,117
28	Folsom Morris Coal Mining Co.....		700
29	Creascent Coal Co. ²	21,640	
30	Indianola Coal and Rwy. Co. ²	18,283	
31	McAlester Coal Co. ²	800	
32	W. H. Ansley ²	300	
	Sundry small mines.....	900	1,000
	Total.....	1,900,127	2,391,688

¹ Choctaw, Oklahoma and Gulf R. R. and Kali Inla Coal Co.

² Operated in 1900 and not operated in 1901.

Following is a list of coal companies and individuals operating within the Indian Territory:

	Name.	Railway.	Shipping point.
1	The McAlester Coal Co.....	Choctaw, Oklahoma and Gulf R. R.....	Hartshorne and Alderson.
2	Atoka Coal and Mining Co.....	Missouri, Kansas and Texas Rwy.....	Lehigh.
3	Osage Coal Mining Co.....	do.....	Krebs.
4	Southwestern Coal and Improvement Co.....	do.....	Coalgate.
5	McAlester Coal and Mineral Co. and Eastern Coal and Mining Co.....	Choctaw, Oklahoma and Gulf R. R.....	Wilburton.
6	Wilburton Coal and Mining Co.....	do.....	Do.
7	Kansas and Texas Coal Co.....	Missouri, Kansas and Texas Rwy.....	Carbon.
8	Mexican Gulf Coal and Transportation Co.....	Choctaw, Oklahoma and Gulf R. R.....	Howe.
9	Milby & Dow Coal and Mining Co.....	do.....	Dow.
10	McAlester Coal Mining Co.....	Missouri, Kansas and Texas Rwy.....	Buck.
11	Devlin-Wear Coal Co.....	St. Louis and San Francisco Rwy.....	Poteau.
12	Perry Bros.....	Missouri, Kansas and Texas Rwy.....	Coalgate.
13	Ola Coal and Mining Co.....	Choctaw, Oklahoma and Gulf R. R.....	Wilburton.
14	J. B. McDougall.....	Missouri, Kansas and Texas Rwy.....	Coalgate.
15	Halley Coal and Mining Co.....	Choctaw, Oklahoma and Gulf R. R.....	Halleyville.
16	Samples Coal and Mining Co.....	Missouri, Kansas and Texas Rwy.....	McAlester.
17	Ozark Coal and Railway Co.....	Kansas City Southern.....	Panama.
18	D. Edwards & Son.....	Missouri, Kansas and Texas Rwy.....	McAlester.
19	Choctaw Coal and Mining Co.....	Kansas City Southern.....	Sutter.
20	R. Sarlls.....	Missouri, Kansas and Texas Rwy.....	Savanna.
21	Turkey Creek Coal Co.....	Choctaw, Oklahoma and Gulf R. R.....	Hughes.
22	Wm. Busby-Baker mines (formerly Archibald Coal and Mining Co.).	Missouri, Kansas and Texas Rwy.....	McAlester.
23	St. Louis-Galveston Coal Co.....	do.....	Atoka.
24	M. Perona.....	do.....	Savanna.
25	Caston Coal Co.....	Choctaw, Oklahoma and Gulf R. R.....	Wister.
26	McAlester and Galveston Coal Mining Co.....	Missouri, Kansas and Texas Rwy.....	McAlester.
27	H. Newton McEvers (formerly McEvers & McAlester)	do.....	Do.
28	Folsom Morris Coal Mining Co.....	do.....	Midway.

PRODUCTION OF COKE IN THE INDIAN TERRITORY FOR THE YEAR 1901.

There are at this writing operating in the Indian Territory 230 coke ovens, with 50 more not yet quite completed, making 280 coke ovens in the Indian Territory. Eighty of these coke ovens are operated by the Osage Coal and Mining Company at or near Krebs, Ind. T. Fifty coke ovens at Alderson and 100 at Howe are operated by the Mexican Gulf Coal and Transportation Company, which company is now in the hands of a receiver.

The production of coke for the past year is as follows:

	Tons.
Osage Coal and Mining Company	19, 670
Mexican Gulf Coal and Transportation Company	14, 230

The appended letter from Mr. Franklin Bache, receiver, describes the operations of the Mexican Gulf Coal and Transportation Company:

MEXICAN GULF COAL AND TRANSPORTATION COMPANY,
Howe, Ind. T., September 5, 1901.

DEAR SIR: Beg to acknowledge yours of September 2, asking for the production of coke for the year ending June 30, 1901, for the plant at Alderson and the plant at Howe. There was produced in that time 10,613 tons coke at Alderson, average number of ovens in blast during the time 45, and the ovens at Howe produced 3,617 tons, and I presume that this will average about 15 ovens in blast during the time, as we have half of the battery started now. The whole battery lay dead for the months of October, November, December, January, February, March, April, and part of May. We will have the full battery of 100 ovens started in full blast here in possibly fifteen days.

Trusting that the above information will be sufficient for you to make report from, I am,

Yours, truly,

FRANKLIN BACHE, Receiver.

WILLIAM CAMERON,

United States Mine Inspector, South McAlester, Ind. T.

1. THE McALESTER COAL COMPANY.

This company operates the mines on the leases owned by the Choctaw, Oklahoma and Gulf Railroad. The officials are Franklin Bache, president; Francis E. Bond, treasurer, and Heber Denman, superintendent. The offices of the company are at Hartshorne and Alderson, Ind. T. This company has made extensive improvements during the past year. No. 5 shaft has been connected with No. 7 slope, and the two are now operated as one mine. A new shaft, known as Shaft No. 6, is now in process of sinking and will be over 500 feet deep, at a point about 2 miles east of Alderson. The sinking of a new shaft northeast of Hartshorne has just been commenced. A number of slopes known as the "Bache slopes" have been sunk or are in process of sinking, and are numbered from No. 1 to No. 8.

A tram road, with small locomotive, hauls the coal above ground in pit cars from the Bache slopes to the tippel at railroad.

All the workings of the shafts and slopes described in previous reports have been extended.

HARTSHORNE SHAFT NO. 1

This is one of the oldest shafts now in operation in the Indian Territory, and its workings have become very extensive. The average thickness of the coal is 4 feet 6 inches, with a dip of 5 degrees in a northerly and easterly direction. The shaft is 202 feet deep. There are four slopes

in operation, known as Nos. 4, 11, 14, and 16, from which 19 entries are turned. The total number of rooms in operation is 193. Hoisting and third compartments are 6 by 8 feet. Air shaft is 40 feet deep, 6 by 6 feet. Average number of men employed, 375. Daily output of coal, 700 tons. Equipment consists of a pair of hoisting engines; maker, McMullen; 200 horsepower; 18 by 30 inch cylinders, with drum 8 feet in diameter, 7-foot face. No. 4 Slope is equipped with a pair of Webster, Camp & Lane engines, 200 horsepower, 18 by 30 inch cylinders, with drum 8 feet in diameter, 7 foot face. No. 3 Slope is equipped with a pair of Webster, Camp & Lane engines, 40 horsepower, 8 by 12-inch cylinders, and drum 3 feet 6 inches by 3 feet. No. 11 Slope is equipped with a pair of Webster, Camp & Lane engines, 40 horsepower, 8 by 12 inch cylinders, with drum 3 feet 6 inches by 3 feet. No. 16 Slope is equipped with Webster, Camp & Lane engines, 40 horsepower, 8 by 12 inch cylinders, with drum 3 feet 6 inches by 3 feet. This mine is also equipped with a Ridgeway Dynamo and Engine Company dynamo, driven by suitable engine, which furnishes power to one 10 by 10 inch pump, one 7 by 8 inch pump, and one 3 by 4 inch pump; also to electric locomotive of 50 horsepower. The voltage carried is 250 volts. Output is shipped via the Choctaw, Oklahoma and Gulf Railroad. The accidents at this mine for the past year have been seventeen, four of which have been fatal. A full description of these accidents will be given under the proper head.

SHAFT NO. 3, AT GOWEN, INDIAN TERRITORY.

This shaft was sunk in the year 1897. Average thickness of coal is 4 feet 6 inches, which dips 5 degrees to the south and west. Shaft is 252 feet deep. A slope driven from the crop is 3,400 feet in length. Seventeen entries are in operation, from which are turned 180 rooms. Hoisting and third compartments of shaft are 6 feet 8 inches. Ventilation is had by means of the slope. The average number of men employed is 300. The daily output is 750 tons. Equipment consists of a pair of Webster, Camp & Lane engines, 200 horsepower, 18 by 30 inch cylinders, with drum 8 feet in diameter, 7-foot face. At the slope a pair of 20 by 30 inch Litchfield engines are used. Ventilation is secured by means of a 10-foot and a 12-foot fan. Steam is generated by a battery of six boilers. Output is shipped via the Choctaw, Oklahoma and Gulf Railroad. The accidents at this mine for the past year have been six, two of which proved fatal.

SHAFT NO. 5 AND SLOPE NO. 7, INDIAN TERRITORY.

Slope No. 7 was sunk in the year 1896. Shaft No. 5 was sunk in the year 1900. The slope is 12 "lifts," or about 3,700 feet in length, connecting with the main east entry of shaft No. 5 at a point about 200 feet distant from the foot of the shaft. The shaft is 542 feet deep. Slope No. 7 and Shaft No. 5 are now operated conjointly as mine No. 5. The average thickness of coal is 3 feet 6 inches, having a dip of 10 degrees in a southerly direction. There are 12 entries, from which 50 rooms are now in operation. Hoisting shaft is 8 by 22 feet, with third compartment 6 feet 8 inches by 8 feet, which is used as air shaft for a 20-foot downcast fan. A 12-foot fan at Slope 7 acts as an upcast and assists the ventilation, which is abundant. The average number of men employed is 200. The equipment of this mine is most extensive

and complete. A pair of Kenney & Co. engines, each with 24 by 36 inch cylinders, with conical downs 6 feet 6 inches to 8 feet 6 inches, each with 36-inch face are used for hoisting. The Norwalk air compressor, formerly in use at No. 1 Slope, which has been abandoned, is installed at this mine and will be used for assisting ventilation, and furnishes motive power for pumps and mining machines. It is also the intention to equip this mine with dynamo and electric machine and locomotive as the mine is extended. The inside slope is equipped with a Webster, Camp & Lane double engine, 18 by 30 inch cylinder and 8-foot drum with 7-foot face. Slope 7 is equipped with Crawford & McCrimmon engine, 24 by 36 inch cylinder, with drum 8 feet in diameter, 6-foot face. The product of this mine is shipped via the Choctaw, Oklahoma and Gulf Railroad from Alderson. There have been during the past year thirty-nine accidents in this mine, eight of which were fatal.

SLOPE NO 15

This mine is a short distance east of Alderson. It was commenced in the year 1900. The average thickness of coal is 3 feet 4 inches and dips 14 degrees to the south. The slope has been sunk 1,600 feet. Five entries, from which 20 rooms have been turned, are now in operation. Ventilation is had by means of an air shaft 5 by 5 feet and 20 feet deep. The average number of men employed is 40, and the daily output is 100 tons. Equipment consists of a Nelsonville Foundry and Machine Company double hoisting engine, 10 by 12 inch cylinder, with drum 4 feet in diameter, 3-foot face. Product is shipped via the Choctaw, Oklahoma and Gulf Railroad. There have been two accidents in this mine during the past year, neither of which proved fatal.

BACHE SLOPES.

These consist of eight slopes sunk from a mile to 2 miles east of Alderson and are about 620 feet apart. Slopes Nos. 1, 2, 3, and 4 are in operation, and Nos. 5, 6, 7, and 8 are in process of sinking. The coal in these slopes averages 3 feet 4 inches in thickness, with a dip of 15 degrees to the south. Slope No. 1 is sunk 1,600 feet and has in operation 40 rooms, which are turned from the slope. Air shaft is 5 by 5 feet. Average number of men employed, 60. Daily output, 150 tons. Equipment is one Nelsonville Foundry and Machine Company double hoisting engine, 10 by 12 inch cylinders, with drum 4 feet in diameter, 4-foot face. There were four accidents at this mine during the past year, two of which proved fatal.

Bache Slope No. 2 is sunk 800 feet. Thirty rooms are in operation. Air shaft is 5 by 5 feet. Average number of men employed is 50, and daily output is 100 tons. Equipment is 50-horsepower Nelsonville Foundry and Machine Company double engine, with 10 by 12 inch cylinders and drum 4 feet 10 inches in diameter, 4-foot face. There have been no accidents at this mine during the past year.

Slope No. 3 is sunk 800 feet. Thirty rooms are in operation. Air shaft is 5 by 5 feet. Average number of men employed, 60. Daily output, 100 tons. Equipment is 50-horsepower Nelsonville Foundry and Machine Company double engines with 10 by 12 inch cylinders and drum 4 feet in diameter, 4-foot face. There have been two accidents at this mine during the past year, neither of which proved fatal.

Slope No. 4 is sunk 200 feet. Six rooms have been turned off slope. Air shaft is 5 by 5 feet. Average number of men employed, 12. Daily output, 20 tons. Equipment is 50-horsepower Nelsonville Foundry and Machine Company double engine, with 10 by 12 inch cylinders and drum 4 feet in diameter, 4-foot face. There have been no accidents at this mine during the past year.

Slopes Nos. 5, 6, 7, and 8 in process of sinking.

SLOPES NOS. 18 AND 19.

Slope No. 18 is now being sunk east of Hartshorne, and Slope No. 19 west of Gowen, Ind. T.

Following is the scale of wages paid by the McAlester Coal Company:

Weghmen	per month..	\$65.00	Boas drivers	per month..	\$70.00
Dumpers	per day..	1.75	Track layers	per day..	2.25
Top hands	per day..	\$1.50 to 1.75	Drivers	do....	2.10
Master mechanics	per month..	85.00 to 110.00	Cagers	do....	2.25
Hoisting engineers	per month..	70.00	Gobblers	do....	
Slope engineer	do....	60.00	Couplers	do....	
Firemen	per day..	1.80	Oilers	per day..	\$0.90 to 1.25
Blacksmiths	do....	2.50	Trappers	do....	.90 to 1.50
Helper	do....	1.50	Screened coal	per ton..	.90
Team and man	do....	2.50	Mine run coal	per ton..	\$0.60 to .65
Stable boss	per month..	60.00	Entry work	per yard..	2.30
Teamster	per day..	1.50	Narrow work	per yard..	\$1.50 to 2.30
Carpenter	do....	2.25	Room turning	each per ton..	.51
Laborer	do....	1.50	Machine helper	per ton..	.54
Pit boss	per month..	100.00	Loaders	do....	.30
Timber boss	do....				

DEDUCTIONS.

Smithing	per month..	\$0.60	Doctor	per month..	\$1.00
House rent	per month..	\$2.00 to 5.50	Territory permits	do....	.25
Powder	per keg..	2.00	Hospital	per month, 10 per cent doctor's fees	

The total product of the mines is shipped via the Choctaw, Oklahoma and Gulf R. R.

Following are the rules of the McAlester Coal Company:

RULES GOVERNING THE MINES OF THE MCALESTER COAL COMPANY.

1. All employees working at these mines shall read these rules, and such as can not read shall have them read to them, and all persons in the service of this company must be governed by these rules and regulations.
2. No person shall be allowed to enter any mine, except employees working in that mine, without written permission from the superintendent.
3. All miners and employees must be in the mine before the 7 o'clock whistle blows in the morning. Drivers must have their mules out of the stable and in their entries, ready for work, and all the other company men be at their places and ready to start work when the 7 o'clock whistle blows.
4. No person shall ride on loaded cars, and no one except rope rider shall ride on rope trip on any slope, except such trip as shall be run at morning and night for carrying men to and from their work, and then only when safety chain is on the cars. All persons are strictly forbidden to cross over from one side of the shaft to the other through the hoisting compartments. Everyone must use passway around bottom of shaft. Wherever there is a manway, persons traveling to and from their work must use it.
5. No person shall go into any old abandoned part of the mine or any other place which is not in actual course of working, without permission from the mine boss, nor shall any one travel to and from work except by the ways provided for that purpose.
6. During the working hours of the mine every employee shall remain at his place of work or duty.
7. No employee or miner shall damage any signal bell, wire brattice, or door, or open a door and not close it again, or do anything by which the safety of the men or the mine may be endangered, and all persons except those duly authorized are strictly forbidden to tamper with any electric apparatus or signal wire about the mine.
8. No miner or other employee shall be entitled to receive his time at the company office until he has obtained a clearance card from the mine boss.

9. In case of any grievance that may arise, the person aggrieved must present his grievance to the pit boss, and should he fail to adjust it, they will refer it to the superintendent, whose decision shall be final. No person shall stop work on account of any grievance, and all matters must be adjusted outside of working hours, such grievance not being such as to endanger the safety of himself or fellow workman.

10. All employees who desire to absent themselves from work must notify the foreman under whom they work the day before of such purpose and state time they expect to be absent.

11. Any tenant of the company's houses, leaving the service of the company voluntarily or involuntarily, will be charged for any damage done, and he will not be entitled to receive any wages due him until the house has been vacated, the keys turned in at the office, and amount of damages be deducted from his wages.

FIRE BOSS.

12. The fire boss shall enter the mine in the morning in time to make a complete examination of the mine before the men enter it. He shall first see that the air is traveling properly, and then proceed to examine the working places. When no gas is found he shall simply mark the date of the month at the entrance to the place and on the coal at the face, which marks will be proof that the place has been examined. If gas is found in a place examined, the fire boss will dead line the place by marking with chalk the date of the month with two or more crosses, thus, X X (date) X X, on a board or timber and placing marked board in the roadway at the entrance of the place. If gas is found in any entry or air course, the dead-line mark shall be placed at a safe distance back from the gas. And under no circumstances must any miner or other person enter a place thus marked. After completing his examination of the mine he shall report to the engineers at the top that men may enter the mine, and he shall mark on the blackboard the condition of the mine, such as falls of rock that he has noticed or any other unusual condition. Should he have found any accumulation of explosive gas in any working place, he shall personally notify the men working in such place as to the danger and notify them not to proceed to work until the danger has been removed. After notifying the men, he shall notify the pit boss, who shall take steps to have gas removed.

13. No unauthorized person shall go into any place or entry where there is an accumulation of explosive gas.

14. The fire boss shall examine all air courses at least once every two weeks, and it shall be his duty to see that all air courses are kept free from falls and in proper condition to keep up the ventilation of the mine.

15. The fire boss shall run the mine as usual on all holidays and idle days, and on Sundays he shall run the mine not later than 8 a. m.

SHOT FIRERS.

16. It shall be the duty of the shot firers to fire all shots, both machine and pick mining, when properly prepared.

17. Shot firers shall not begin to fire shots before 5.30 in the afternoon nor until all the men are out of the mine, and they shall fire only such shots as are properly placed, and that will not endanger the safety of themselves and the mine, or any shots that do not conform to any rules that may be made hereafter.

18. Before firing a shot, the shot firers will first examine for gas in the place, and under no circumstances will they fire where there is any accumulation of gas. Where gas is found it must be carefully removed by brushing till no gas shows in safety lamp. Where gas has been found or in any place making gas, after firing a shot, the shot firer will return and see that no fire has been left from the shot. Shot firer shall not fire more than one room or place at one time.

FIRE RUNNER.

19. It shall be the duty of the fire runner to examine all places where shots have been fired in order to see that no fire has been left from the shots, and they shall mark the date of the month and their initial on coal at the face of all entries as a proof of having examined the place. They shall commence examining mine as soon as possible after shot firers have fired shots. The fire runner shall see that barrels are kept near the face of each entry and that these barrels are kept full of water. Also see that water pipes in each entry are in repair and ready for immediate use; that sufficient hose and all other material is handy for fighting fires. Any deficiency shall be immediately reported to pit boss.

DRIVERS.

20. Drivers shall have mules in their proper entries, ready to begin work at 7 o'clock. Drivers shall have their mules off the slope by 6.55 a. m., before the man trip descends in the morning, and not go onto the slope to go out with the mules until after the man trip has gone up the slope at night, unless otherwise ordered by the driver boss or pit boss.

21. The driver shall take great care in taking his trip down grade and see that cars are properly spragged.

22. He shall leave his mule in a safe place, and if he stops any place on the road, he shall flag at safe distance any drivers following him.

23. No driver shall whip mule with any other instrument other than regular mule whip.

ROPE RIDER.

24. Rope rider shall see that all trips are properly coupled, that all couplings and cars are in safe condition, so as not to wreck on slope.

25. He shall allow no person to ride up and down slope on cars except on man trip, and he shall not run man trip without safety chain from rope to rear end of last car. Man trip shall leave top of slope promptly at 6.55 in the morning and bottom of slope at 5 o'clock in the evening.

SLOPEMEN.

26. Slopemen shall be in slope promptly at 6 o'clock in the morning and see that slope is clear of all rock and obstruction by 7 o'clock.

CAGER.

27. Cager shall descend with first cage in the morning, not later than 6.30, and shall remain at his post of duty until men are lowered.

28. He shall see that men are safely off cage and then signal engineer. After hoisting of coal ceases he shall remain at his proper place at the bottom of the shaft till all men are hoisted out. He shall see that not more than eight men or boys travel on one cage at a time, and that tools are not hoisted on same cage with men, nor materials or tools be on the opposite cage when persons are being hoisted, nor shall he allow anyone to travel in pit cars on any cage.

29. He shall not hoist men between hours of 7 a. m. and 5 p. m., except in cases of accident, while there is coal or other material to be hoisted.

30. No one but cager will be allowed to signal engineer from bottom when cager is on duty. Cager will observe code of signals issued to engineer.

TOP MAN.

31. Top man shall be at his place of duty at ground landing of shaft at 6.30 in the morning when men commence to descend and he shall remain there until 7 o'clock, after which time he will not send anyone down the shaft except those duly authorized to use shaft during working hours. After lowering men he will close shaft gates. He shall not allow more than eight men or boys to travel on a cage at one time and shall prevent any pushing or crowding. He shall allow no one to travel on a cage when there is coal, rock, or other material on the opposite cage, nor travel in mine car on any cage. After quitting time, top man shall stand at head of shaft and attend to hoisting of men until all persons are off the bottom of the shaft, or until 5.30 p. m. He shall see that all persons get safely off the cage and then signal to engineer.

DUTIES OF ENGINEER.

32. It shall be the duty of the engineer to keep careful watch of his engine, fan, and other machinery in his charge and see that same are kept in proper repair and working order.

33. He shall examine engine, hoisting rope, and cages once a week and report their condition to master mechanic on blanks furnished for that purpose.

34. He shall not allow any unauthorized person to enter engine house, nor run or handle any of the machinery.

35. The slope engineer, in handling the man trip, both in the morning and after quitting time, shall run a slow rate of speed and shall come to a full stop at each entry where men work.

36. In hoisting in the slope or shaft the engineers shall observe the following code of signals: Signals to shaft engineer from bottom—One bell, hoist cage, coal, or rock; one bell, stop; two bells, lower cage; three bells, men on cage; four bells, hoist slowly; one bell, lowering men from 6.30 to 7 in morning. Signals to shaft engineer from top bell—One bell, cage all right at top; one bell, stop; two bells, lower cage to ground; three bells, lower men; five bells, go to telephone. Signals to slope engineer—One bell, hoist trip; one bell, stop; two bells, lower trip; three bells, hoist slowly; four bells, lower slowly.

In running man trip on the slope the bellman or rope rider will signal the engineer 5 bells, which will notify the engineer there are men on the trip. Then the bellman or rope rider will give the engineer the regular signal to start, and will use the regular signals. There shall be only one man trip in the morning and one man trip after quitting time. The man trip in the morning shall start down slope promptly at 6.55, and the afternoon trip start from the bottom at 5 p. m.

Engineers shall not lower men until the fire boss has completed his examination and reported the mine safe for men to enter.

DUTIES OF MINERS.

37. All miners shall be off the slope by 7 o'clock in the morning, but no one shall enter the mine until the fire boss has examined all places and reported them safe.

38. On going to his working place the miner shall take special care to notice the cautionary marks of the fire boss, and under no circumstances shall he enter his place, if deadlined by crosses, thus, X X (date) X X, till gas has been removed and the place has been pronounced safe by the fire boss or pit boss. When the working place is safe, the date of the month will be marked at the entrance and on the coal at the face.

39. The miner shall keep his place well propped and in a safe condition, and any miner who shall willfully or negligently suffer his room to get out of repair shall, upon order, put same immediately in repair, and if he does not the company will do the work and charge the cost of the work to the miner.

40. Every miner shall order props, cap pieces, or other timber from driver who brings him his cars, and he shall always keep on hand a sufficient quantity, and he shall order the timber and material in advance, so that the driver may have time to bring them. Should the driver fail to bring them within two days, the miner shall report the matter to the pit boss.

41. Miners working in places where explosive gas is generated shall be furnished with a safety lamp, and on entering the place, even if only left for a short time, before entering it again with an open lamp they shall first try the place with a safety lamp to see that no gas has collected, and they shall not take their naked lamp into the place until it is free from gas.

42. No miner shall fire a shot of any kind, either coal, brushing, or machine shot. Any one caught so doing will be immediately discharged.

43. All shots should be properly placed so as not to cause what is known as a bad shot. The shot shall not be drilled beyond the cutting, and shall not be over 40 inches on the solid at any point and be properly balanced.

44. No one shall take more than 8 pounds of powder into the mines at one time.

45. Whenever a workman shall open a box containing powder or other explosive, or while in any manner handling the same, he shall place his lamp not less than 5 feet from the explosive and in such a position that the air current can not convey sparks to it, and he shall not smoke while handling explosives.

46. Miners shall drive places as herein specified or as directed by the pit boss. In case of failure to drive places as specified or directed, yardage will not be turned in by the pit boss till the place is put into proper condition as specified. All entries and haulage roads and rooms shall be brushed to a height of 4½ feet above top of rail. Air course and break-through between entries and air courses shall be everywhere 6 feet wide and break-throughs between rooms shall be at least 4 feet wide. Rooms shall not be over 24 feet in width, and room necks shall be driven narrow for 30 feet before starting to widen out.

47. Any person loading dirt or slaty coal, for the first offense shall be docked 500 pounds; for the second offense, 1,000 pounds; for the third offense, suspended one week or discharged.

48. No miner who has left the employ of the company or who has been discharged shall be entitled to any pay or money due him until he shall put his room in perfect working order as directed by the company, and all miners leaving employ of company will be required to procure the certificate of the pit boss that they have complied with the rule aforesaid before final settlement shall be made.

49. Any person detected violating any of the above rules for which no penalty is named shall be suspended or discharged at the discretion of the superintendent.

H. DENMAN, *Superintendent.*

2. ATOKA COAL AND MINING COMPANY.

This company operates at and near Lehigh, Ind. T. The officers are Edwin Gould, president; R. M. McDowell, vice-president and general manager; James Cameron, superintendent, and J. S. Cameron, assistant superintendent and cashier. During the past year an electric hauling plant has been installed in mine No. 6, a new air shaft has been sunk at mine No. 7 a depth of 75 feet, and a new 15-foot fan erected to take the place of the old 12-foot fan. Mines Nos. 5 and 5½, 6 and 6½, and 7 have been extended, as will be seen by the following details, and considerable coal has been stripped. The following letter from Mr. J. S. Cameron has been received, with tabulated statement, which is here inserted:

ATOKA COAL AND MINING COMPANY,
Lehigh, Ind. T., August 3, 1901.

DEAR SIR: In accordance with your letter of 17th ultimo, I herewith hand you statement of our production for the year ending June 30, 1901, together with the other information asked for.

The figures on powder are from the books of the Phillips Mercantile Company, who handle the powder at this camp, and I have no means of ascertaining their accuracy.

No improvements have been made in or about the mines during the year, with the exception of the installation of an electric haulage plant in mine No. 6 in the latter part of 1900.

Yours, truly,

J. S. CAMERON, *Assistant Superintendent.*

Mr. L. W. BRYAN,
United States Mine Inspector, South McAlester, Ind. T.

Since writing the above it has come to my mind that a new air shaft has been sunk at mine No. 7 a depth of 75 feet and a new 15-foot fan erected at mine No. 6 to take the place of the old 12-foot fan. The fan at mine No. 6½ has been abandoned, as the new fan at No. 6 furnishes ample air for this mine.

J. S. CAMERON.

Production of coal for the year July 1, 1900, to June 30, 1901.

Month.	Mine 5.	Mine 6.	Mine 7.	D. and S.	Total.
1900.					
July	<i>Tons.</i> 7,487.55	<i>Tons.</i> 8,397.90	<i>Tons.</i> 19.75	<i>Tons.</i> 399.10	<i>Tons.</i> 16,304.30
August	8,361.50	8,256.35	834.35	6,086.65	22,987.85
September	6,859.25	7,621.70	674	7,075.65	22,230.60
October	9,138.65	8,032.95	2,368.95	5,336.75	24,876.40
November	9,325.45	4,080.10	3,212.80	9,316.45	25,934.80
December	7,976.35	6,371.80	3,341.15	9,876.06	27,564.35
1901.					
January	9,401	7,344	4,833	8,754	30,332
February	8,073	8,105	4,712	7,614	28,504
March	9,420	7,832.50	4,736.50	7,655	29,644
April	10,048	7,065	5,179	5,871	28,163
May	10,454.75	8,004.65	6,295.80	4,892.30	29,647.50
June	7,646	6,700	4,893	3,747	22,986
Total	104,190.50	87,830.95	40,599.40	76,573.95	309,194.80

Approximate number of kegs of powder used..... 8,184
Average number of days worked..... 272
Average number of men employed..... 765

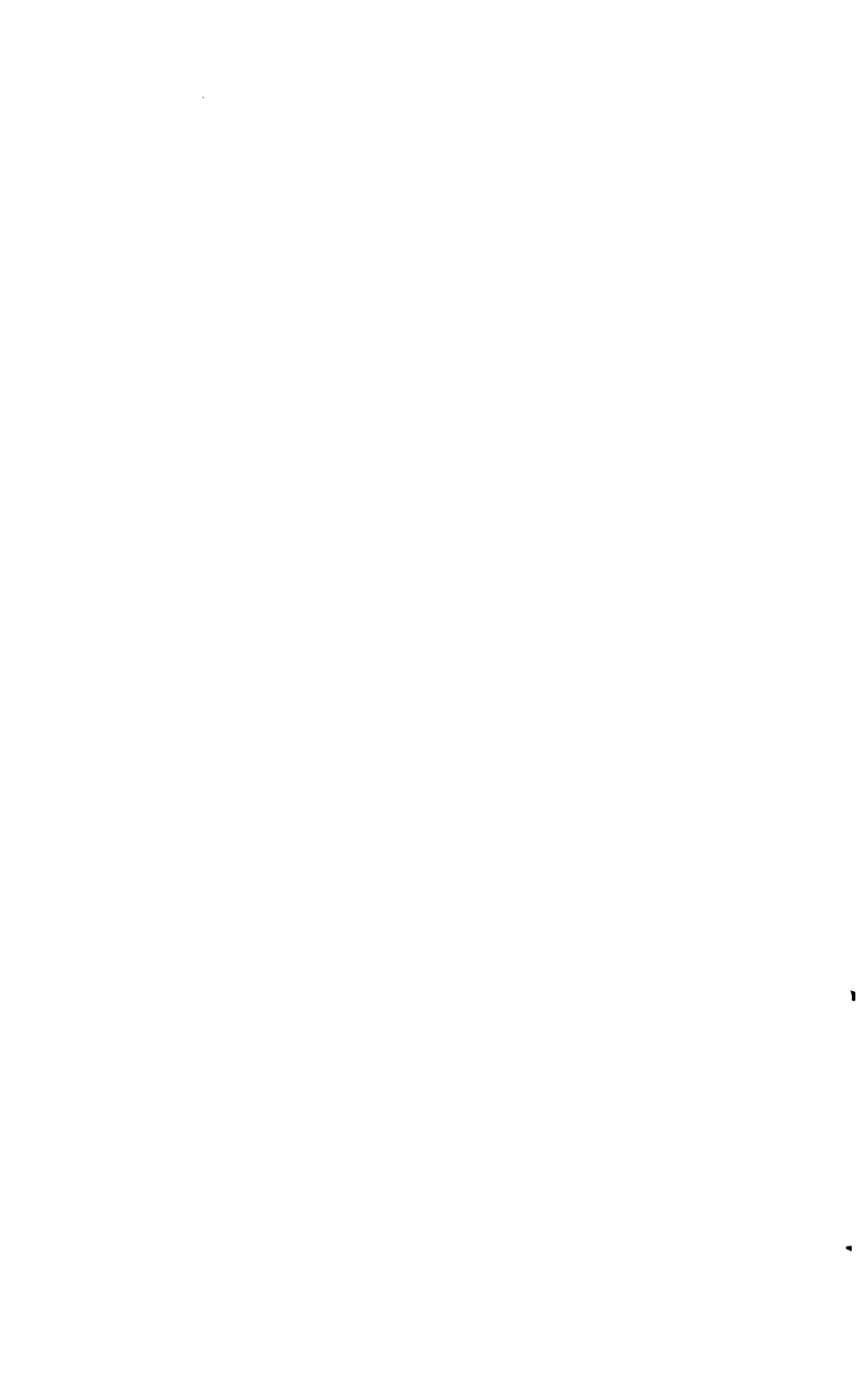


MINE NO. 7, LEHIGH. ATOKA COAL AND MINING COMPANY.



MINE NO. 7, LEHIGH. ATOKA COAL AND MINING COMPANY.







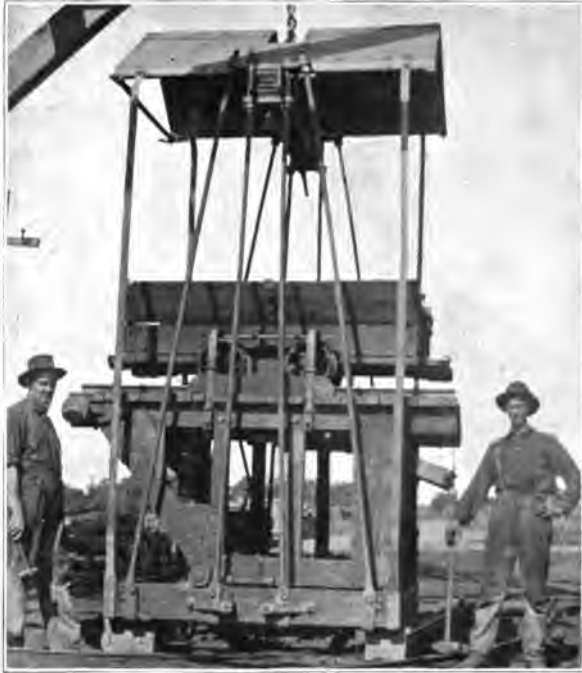
STRIPPING COAL AT LEHIGH, IND. T.



STRIPPING COAL AT LEHIGH, IND. T.







SELF-DUMPING CAGES.



SELF-DUMPING CAGES.

MINE NO. 5 (INCLUDING 5½ SHAFT).

This mine was sunk during the year 1897. Average thickness of coal is 4 feet 8 inches with a dip of 4 inches to the yard, the direction being S. 80° E. Shafts are 200 feet deep. Slope has been sunk 2,000 feet and plane to the rise 1,000 feet. There are at present 12 entries in operation, from which 125 rooms are turned. Hoisting shaft is 7 by 10 feet, with third compartment 7 by 4 feet. Air shaft is 175 feet deep. Average number of men employed 225. Daily output 700 tons. Equipment consists of double Litchfield hoisting engine, 160-horsepower, first motion, 16 by 30 inch cylinders, drum 8 feet in diameter, 8-foot face. Slope engine is 60-horsepower geared single engine, 12 by 24 inch cylinder, drum 6 feet in diameter, 4-foot face. Haulage shaft 5½ is provided with 75-horsepower geared single engine, 12 by 20 inch cylinders, with drum 8 feet in diameter, 8-foot face. There was only one accident at this mine during the past year; not fatal.

MINE NO. 6 (INCLUDING 6½ HAULAGE SHAFT).

This mine was commenced in 1888. Coal is 4 feet 8 inches thick. Dip is 5 inches to the yard, direction being S. 22° E. Shaft is 240 feet deep. Slope is 2,000 feet in length and plane driven to the rise is 1,000 feet. Eleven entries are in operation and 130 rooms are turned therefrom. Hoisting shaft is 7 by 4 feet. Air shaft is 260 feet deep, 6 by 10 feet. The average number of men employed is 200 and the daily output is 500 tons. Equipment is a double Litchfield hoisting engine, 160 horsepower, first motion, with 16 by 30 inch cylinders, and drum 8 feet in diameter, 8-foot face. Slope engine is a single-gear Ranken engine with 14 by 20 inch cylinders and drum 6 feet in diameter, 4-foot face. This mine is also equipped with a Thompson-Ryan dynamo 125-horsepower 220-260 volts driven by a Waterton 150-horsepower automatic engine, 13 by 12 inch cylinders, and which furnishes power for electric lights, Jeffrey mining and shearing machines, and Morgan Gardner shearing machines. There is also an electric locomotive which hauls coal on the main north entry from the foot of the 6½ shaft to the foot of No. 6 shaft. There were five accidents at this mine during the past year, one of which proved fatal.

MINE NO. 7.

This mine was commenced in the year 1900. Coal is 4 feet 6 inches thick with a dip of 3 inches to the yard; direction is S. 72° E. Shaft is 100 feet deep. Slope is sunk 1,000 feet and plane driven to the rise 300 feet. Eight entries are in operation, from which 60 rooms are turned. Hoisting shaft is 7 by 10 feet. Third compartment is 7 by 4 feet. Air shaft is 75 feet deep, 6 by 10 feet. The average number of men employed is 100. Daily output is 300 tons. Equipment consists of a first-motion Keystone 100-horsepower double hoisting engine with 12 by 24 inch cylinders and 6-foot drum with 8-foot face. There were two accidents during the past year, one of which proved fatal.

All the product of the foregoing mines of the Atoka Coal and Mining Company is shipped from Lehigh, Ind. T., over the Missouri, Kansas and Texas Railroad.

Following is the scale of wages paid by the Atoka Coal and Mining Company:

Weighmen	per month..	\$67.50	Boos drivers	per day..	\$2.35
Dumper	per day..	1.80	Tracklayers	do...	2.25
Top hands	do...	1.60	Drivers	do...	2.10
Master mechanics	per month..	100.00	Cagers	do...	2.10
Holting engineers	do...	60.00	Gobbers	do...	2.10
Firemen	do...	47.50	Couplers	do...	1.25
Slope engineer	do...	60.00	Oilers	do...	1.10
Blacksmiths	do...	70.00	Trappers	do...	.75
Helper	per day..	1.75	Screened coal	per ton..	.75
Team and man	do...	2.50	Mine-run coal	do...	.60
Stable boss	per month..	47.50	Entry work	per yard..	2.00
Teamster	do...	42.50	Narrow work	do...	1.60
Carpenter	per day..	2.25	Room turning	each..	5.00
Laborer	do...	1.50	Machine runner	per day..	2.50
Pit boss	per month..	85.00	Machine helper	do...	2.25
Timber boss	per day..	2.35	Loaders	per ton..	.80

DEDUCTIONS.

Smithing	per month..	\$0.60	Doctor	per month..	\$1.00
House rent	do...	4.50	Territory permits	do...	.20
Powder	per keg..	1.75	Hospital	do...	.10

The following rules are in force in the Atoka Coal and Mining Company mines:

DUTIES OF MINERS.

RULE 1. The miner shall each day examine his working place before beginning work and take down all dangerous slate, or otherwise make it safe by properly timbering the same before commencing to dig or load coal, and he shall at all times be very careful to keep his working place in a safe condition during working hours.

RULE 2. Should he at any time find his place becoming dangerous from any unusual condition that may have arisen, he shall at once cease working and inform the mine boss or his assistant of such danger.

RULE 3. Every miner shall order props, cap pieces, or other necessary timbers from the driver who brings him his cars. The miner shall always have on hand a sufficient quantity of props, cap pieces, and other necessary timbers, and shall order the same in advance so that the driver may have time to bring them. Should the miner from any cause have no props or other necessary timbers on hand, he shall immediately cease work, vacate his working place, and report the fact to the mine boss.

RULE 4. No shot in rooms of full width shall be placed at a greater depth on the solid than the depth of the undermining. In all narrow work, such as entries, room turning, break throughs, etc., the coal must be sheared or cut in on one side the full thickness of the vein and at least the full depth of the drill hole.

RULE 5. Any miner who negligently blows out timbers and causes falls at his working place will be required to clear the same at his own expense. This company will only assist at such clearing or falls when the roof was known to have been bad or there was no negligence shown on the part of the miner.

RULE 6. Any miner loading "bony" coal or any other foreign matter with his coal shall, for the first offense be suspended one day; for a second offense be suspended one week, and for the third offense shall be discharged.

RULE 7. Firing of shots shall take place but once daily, and shall commence at 5 p. m. at a signal to be agreed upon by the mine boss and the miners. In case of men working but half a day, shots may be fired at 12 o'clock noon. Any miner firing before these hours shall be subjected to the same penalties as are specified in rule 6 for loading dirty coal.

RULE 8. Blasting shall commence at first room on return air way, and shall be in rotation, ending in first room on intake air way, and rooms being turned shall wait until entrymen have fired.

RULE 9. Miners firing a shot in break through or in rib shall first warn miners working in next room that such shot is to be fired.

DUTIES OF DRIVERS.

RULE 10. When a driver has occasion to leave his trip, or when a trip for any cause is stopped anywhere except at a regular station, he must see that it is left, when possible, in a safe place secure from cars or other dangers, or from endangering drivers

or trips following; and if the trip is left on a main hauling way he must go back and notify approaching drivers, if any, of the existing obstructions, that they may be enabled to stop their trips and avoid collisions.

RULE 11. The driver must take great care in taking his trips down grade to have the sprags so adjusted that he can keep the cars under control and thus prevent accidents.

RULE 12. On receiving orders from workmen for props, cap pieces, or other necessary timbers, the driver will bring the same with all possible dispatch; and in case, for any reason, they can not be obtained, he will report the fact to the workman so ordering and also to the mine boss.

DUTIES OF ROPE RIDERS.

RULE 13. The position of rope rider being one of peculiar hazard, he must use special care and precaution to avoid the accidents incident thereto.

RULE 14. He shall use great care in seeing that all couplings are safe for use, and see that all trips are properly coupled before starting; and should he at any time see any material defect in the rope, hook, link, or chain, he shall immediately remedy such defect, or, if unable to do so, he shall detain the trip and report the matter to the mine boss.

DUTIES OF CAGERS OR MEN ASSIGNED TO THAT POSITION.

RULE 15. The cager shall be at his proper place at the bottom of the shaft when men begin to descend in the morning, and remain there until the hoisting of coal commences. He shall see that men are safely off the cage and then signal the engineer. He shall be at his proper place at the time the hoisting of coal ceases and men commence to be hoisted in the evening, and shall see that not more than 8 persons get on the cage at any one time, and when they are safely on the cage he shall signal the engineer to hoist them. The man acting as cager during the hoisting of coal shall see that all cars are safely held on cage by the catch provided for that purpose before signaling the engineer. He shall not allow any tools or material of any kind to be placed on the same cage with men or boys nor on the opposite cage when men are being hoisted out of the mine or being lowered into it, except when for the purpose of repairing the shaft or the machinery therein. The men shall place their tools in cars provided for that purpose, which car or cars shall be hoisted or lowered before or after the men have been lowered. In signaling the engineer the topman shall use the signals as directed in general rule No. 30.

DUTIES OF ENGINEERS.

RULE 17. It shall be the duty of the engineer to keep careful watch over his engine and all machinery under his charge, and see that the same is in proper working order before attempting to raise or lower men or material.

RULE 18. He shall see that the boilers are cleaned and inspected at proper intervals, and shall see that the steam pressure does not exceed at any time the limit allowed by the superintendent.

RULE 19. He shall not allow any unauthorized person to enter the engine house, neither shall he allow any person to handle or run the engine without permission of the superintendent.

RULE 20. When workmen are being raised or lowered he shall take special precautions to keep the engines well under control.

RULE 21. The engineer will observe and operate his engine in accordance with the general and special rules governing signals. (See general rule No. 30.)

DUTIES OF FIREMEN.

RULE 22. Every fireman or other person in charge of a boiler or boilers for the generation of steam shall keep a careful watch of the same. He shall see that the steam pressure does not exceed at any time the limit allowed by the superintendent. He shall frequently try the safety valves, and shall not increase the weight on the same. He shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this he shall report the same without delay to the engineer and take such other action as may, under the particular circumstances, be necessary for the protection of life and the preservation of property.

RULES AND REGULATIONS IN REGARD TO POWDER.

RULE 23. No powder can shall be opened in any other manner than that provided by the slide or lead plug provided for that purpose. It is strictly forbidden to use a plug of any kind to drive through the end of a powder keg for the purpose of opening the same.

RULE 24. Powder must be kept in a proper tight-locked box at a sufficient distance from the working face, such distance to be designated by the mine boss.

RULE 25. Whenever a workman shall open a box containing powder or other high explosives, or while in any manner handling the same, he shall first place his lamp not less than 5 feet from such explosives and in such a position that the air current can not convey sparks to it, and he shall not smoke while handling explosives.

GENERAL RULES.

RULE 26. No person shall be allowed to enter any mine, except employees working in the mine, without permission of the superintendent.

RULE 27. No person in a state of intoxication shall be allowed to go into or loiter about any mine.

RULE 28. No person shall be allowed to travel on foot to or from his work on any incline, plane, or slope when other good roads are provided for that purpose. As each mine is provided with a passway around the shaft at the bottom, all persons employed in the mines or others are strictly forbidden to cross over from one side of the shaft to the other side through the hoisting compartment under any circumstances whatever.

RULE 29. Workmen and all other persons are strictly forbidden to commit any nuisance or throw into, deposit, or leave coal, dirt, or stones or other rubbish in the air courses or roads, so as to interfere with, pollute, or hinder the air passing into or out of the mine.

RULE 30. In all shafts or slopes where persons, coal, or material of any kind are hoisted or lowered by machinery the following code of signals shall be used:

One signal—To hoist coal or other material.

Two signals—To stop cage or car when in motion.

Three signals—That persons are to be hoisted; on hearing which the engineer will signal back "ready" by giving one signal. On hearing the last-named signal the persons will get on car or cage, and when they are safely on car or cage one signal shall be given the engineer to hoist. After the hoisting of coal has ceased in the evening and the 5-o'clock whistle has blown, it will only be necessary to give the first three signals for the first three cages of men, after which the one signal "ready" shall be given for each cage until all the men are out.

Four signals—That mules are to be hoisted; on hearing which the engineer will signal back "ready" by giving one signal. On hearing the last-named signal the mule will be placed on the cage, and when it is safely on the cage one signal shall be given the engineer to hoist.

Five signals—Turn steam onto slope or underground engines.

Six signals—Shut steam off from slope or underground engines.

RULE 31. No person or persons shall go into an old or abandoned part of the mine, or into any other place which is not in actual course or working, without the permission of the mine boss, nor shall they travel to or from their work except by the traveling ways provided and assigned for that purpose.

RULE 32. No person in the mine shall be allowed to enter any room or working place except the working place to which his duty calls him. It is strictly forbidden for any person to visit a room or other working place except his own, either during the presence or absence of the proper occupants. All boys or other persons assigned to special posts, as trappers or otherwise, must remain at their post while on duty.

RULE 33. All miners must be in the mine before the 7-o'clock whistle blows in the morning. Drivers must have their mules out of the stable and ready for work, and all other company men must be prepared to start work when the whistle blows at 7 o'clock.

RULE 34. Any person found with tools or powder belonging to another person, without the owner's consent, shall for the first offense be fined \$2.50, and for the second offense he shall be discharged, such fines to be paid to the owner of the tools or powder and collected at the company's office. Any person detected in exchanging checks on the pit cars shall be immediately discharged.

RULE 35. Any miner or other employee who shall damage any signal bell, or wire, brattice, airway, or door, or open a door and not close it again, or do anything by which the safety of the men in the mine may be endangered, shall be immediately discharged.

RULE 36. Whenever it shall be the duty of any person to go into the "sump," or space below the cage at the bottom of the shaft, for the purpose of cleaning out, removing dirt, or otherwise, they shall first place a prop or props of wood or iron in such a manner as to arrest the cage should it from any cause be made to descend, and thus secure themselves or others from possible danger.

RULE 37. All employees who desire to absent themselves from work must notify the foreman under whom they work the day before, and anyone absent without permission will for the first offense be suspended for three days, and for the second offense be suspended for one week, and for the third offense be discharged, except in case of sickness.

RULE 38. All persons, except those duly authorized, are forbidden to meddle or tamper in any way with any electric or signal wire about the mine.

RULE 39. No miner or other employee shall be entitled to receive his time at the company's office until he shall obtain from the mine boss a clearance card, and in case of employees renting a company house a note must be obtained from the superintendent's clerk stating the amount of rent due.

Adopted July 24, 1897.

WILLIAM CAMERON, *Superintendent.*

Approved.

R. M. McDOWELL, *General Manager.*

3. OSAGE COAL AND MINING COMPANY.

The officials of the above company are Edwin Gould, president; R. M. McDowell, vice-president and general manager; A. M. Fellows, general sales agent; S. W. Farnham, engineer and purchasing agent; James Cameron, superintendent; F. W. Hunn, cashier. General office at St. Louis, Mo.; Indian Territory office at Krebs, Ind. T. This is the oldest company operating in the Territory. The output for the current year was somewhat less than for the previous year, owing to an explosion in their No. 5 mine, which suspended operations for several months. This company operates on seven leases with the Choctaw and Chickasaw nations, approved by the Secretary of the Interior. Homer's slope and Church's slope, heretofore reported, have been suspended. Crowder & Co.'s slope has been commenced, and Clelland's slope is still in operation. Shaft mines Nos. 5, 8, 11, and 11½ have been extended. Details of output, etc., with letter from Mr. Cameron, follow:

KREBS, IND. T., July 26, 1901.

L. W. BRYAN, Esq.,

United States Mine Inspector, South McAlester, Ind. T.

DEAR SIR: In addition to statement herewith attached, beg to submit the following changes in equipment at mines No. 5 and 11 during past year:

At mine No. 5 a new 10 by 12 double slope engine, with a 5½-foot drum, has been installed on top to take the place of the one destroyed by fire caused by explosion.

At mine No. 11 a new 12 by 20 double Litchfield engine, with a 6-foot drum, has been installed on top for a slope engine.

Two new boilers have been installed, one 72 inches by 18 feet, with 70 by 4 inch flues, and one 48 inches by 14 feet, with twelve 6-inch flues, both built by the John O'Brien Boiler Works, St. Louis, Mo., these boilers taking the place of three cylinder boilers.

The "0" entry has been connected with old No. 10 slope, this making a direct air course to No. 10 air shaft, and has improved the ventilation.

All pumping and ventilation has been suspended at old No. 7 and the same dismantled.

Operations were suspended at Church's slope January 29 and at Homer's slope on June 18, 1901.

There were no other changes of any importance during the past year.

Yours, truly,

JAMES CAMERON, *Superintendent.*

KREBS, IND. T., July 23, 1901.

L. W. BRYAN, Esq.,

United States Mine Inspector, South McAlester, Ind. T.

DEAR SIR: In compliance with your request of July 16, herewith find statement of output of coal by the Osage Coal and Mining Company's mines at Krebs, Ind. T., for the year ending June 30, 1901, with a statement of average number of men employed, number of kegs of powder used, number of days worked, with output of coke, etc.

Month and year.	Days worked.	Kind of coal.	Output of coal.	Month and year.	Days worked.	Kind of coal.	Output of coal.
<i>Mine No. 5.</i>				<i>Mine No. 8—C't'd.</i>			
1900.				1901.			
July	24	Lump	4,488	May	25½	Lump	2,090.45
		Nut	225.90			Nut	421
		Slack	749.90			Slack	588.61
		Mine run	20.20	June	23½	Lump	2,086.60
August	26	Lump	4,066.85			Nut	442.55
		Nut	281.30			Slack	607.13
		Slack	736.56	<i>Mine No. 11.</i>			
September	23	Lump	3,874.15	1900.			
		Nut	369.30	July	25	Lump	7,127.20
		Slack	715.10			Nut	372.66
October	22½	Lump	3,972.30			Slack	2,329
		Nut	181.25			Mine run	3,935.25
		Slack	1,086.25	August	26	Lump	7,418.25
November	23	Mine run	32.85			Nut	359.10
		Lump	4,300.60			Slack	2,403.40
		Nut	489.85			Mine run	8,638.70
December	24	Slack	1,035	September	22	Lump	7,915.85
		Lump	4,588.90			Nut	241.40
		Nut	466.75			Slack	1,915.55
		Slack	1,315.10			Mine run	2,251.15
1901.				October	22½	Lump	8,660.60
January	25½	Lump	5,295.85			Nut	390.45
		Nut	466.65	November	23	Lump	9,212.10
		Slack	1,299.95			Nut	361
February	20½	Lump	5,102.60			Slack	1,865
		Nut	391.95			Mine run	85.80
		Slack	1,496.25	December	23	Lump	9,459.35
March		Lump	29.70			Nut	257.85
April		Lump	60.60			Slack	2,473
May	27	Lump	2,113.60			Mine run	43.30
		Nut	72.10	1901.			
		Slack	304.32	January	23	Lump	9,898.90
June	24½	Lump	3,184.60			Nut	151.95
		Nut	310.50			Slack	2,385.70
		Slack	675.64			Mine run	30
<i>Mine No. 8.</i>				February	19½	Lump	8,037.95
1900.						Nut	81.10
July	25	Lump	635.95			Slack	1,889.80
		Slack	252	March	21½	Lump	9,263.95
		Mine run	487.05			Nut	335.75
August	27	Lump	1,826	April	22	Lump	2,170
		Slack	464.65			Nut	9,498.90
		Mine run	161.85			Slack	290.45
September	24	Lump	1,690.80	May	25	Lump	10,104.35
		Nut	105.70			Nut	163.65
		Slack	425.40			Slack	2,408.97
October	25	Lump	1,559	June	24½	Lump	9,196.20
		Nut	288.35			Nut	527.30
		Slack	417.35			Slack	2,292.28
		Mine run	19.90	<i>Homer's, Hughes', Church's, and Chowder & Co.'s slope mines.</i>			
November	23	Lump	1,586.65	1900.			
		Nut	311.15	July	18½	Lump	4,321
		Slack	450.15			Slack	183
December	23	Lump	1,509.15	August	22	Lump	4,287.25
		Nut	273.60			Mine run	410.20
		Slack	394.60	September	23	Lump	2,631.85
1901.				October	18	Lump	1,848.95
January	25	Lump	1,340.40			Mine run	1,140.05
		Nut	100.05	November	16½	Lump	1,311.80
		Slack	370.85			Mine run	1,060.05
February	21½	Lump	1,540.45				
		Nut	256.06				
		Slack	382.65				
March	22½	Lump	1,480.10				
		Nut	333.60				
		Slack	360				
April	22½	Lump	1,740.25				
		Nut	349.25				
		Slack	491				

Year and month.	Days worked.	Kind of coal.	Output of coal.	Month and year.	Days worked.	Kind of coal.	Output of coal.
<i>Homer's, Hughes', Church's, and Chouder & Co.'s slope mines.—Continued.</i>				<i>Homer's Hughes', Church's, and Chouder & Co.'s slope mines—Continued.</i>			
1900.			<i>Tons.</i>	1901.			<i>Tons.</i>
December.....	18½	Lump Mine run.	2,197.20 184.05	April.....	19	Lump Slack Mine run.	1,747.55 30 167.75
1901.				May.....	18½	Lump Mine run.	1,638.15 187.10
January.....	18	Lump Mine run.	2,317.55 241.45	June.....	15	Lump Mine run.	962.70 122.20
February	15½	Lump Slack Mine run.	2,321.85 25 146.45				
March	17½	Lump Slack Mine run.	2,060.70 30 250.90				

RECAPITULATION.

Mine No. 5.....	tons..	53,745.41
Mine No. 8.....	do.....	27,844.20
Mine No. 11.....	do.....	146,089.40
Slope mines.....	do.....	31,264.75
Total.....	do.....	258,893.76
Mine No. 5 worked during year.....	days..	240½
Mine No. 8 worked during year.....	do.....	287½
Mine No. 11 worked during year.....	do.....	277½
Slope mines averaged each.....	do.....	220
Coke produced during year.....	tons..	19,670
Powder used:		
Saltpetre.....	kegs..	3,947
Soda.....	do.....	2,648
Total.....	do.....	6,595
Average number of employees.....		725

SHAFT MINE NO. 11.

This shaft was sunk in 1888, and is the second oldest mine now operating in the Territory. The coal is 4 feet 2 inches thick with a dip of 4½ inches to the yard, the direction being S. 55° W. Shaft is 470 feet deep. Slope has been sunk 2,100 feet. Eight entries with 100 rooms turned therefrom are now in operation. Hoisting shaft is 6 feet 6 inches by 12 feet with third compartment 3 feet by 6 feet 6 inches. Air shaft is 5 by 8 feet and is 270 feet deep. The average number of men employed is 275. Equipment consists of double Litchfield hoisting engines with 18 by 32 inch cylinders. One plane, a 100-horse power Fort Scott Foundry and Machine Company single engine with 12 by 20 inch cylinders and drum 5 feet in diameter and 5-foot face is in use. Haulage on slope is performed by means of 125-horsepower Litchfield double engine with 12 by 20 inch cylinders and drum 5 feet in diameter with 5-foot face. A Duncan Foundry and Machine Company single engine, 50 horsepower, 7 by 10 inch cylinder, is used for elevating screenings. For drawing electric dynamo a 150-horsepower Ide & Son single engine with cylinders 14 by 15 inches is in use, and drives a 100-horsepower Thompson-Houston, kilowatt dynamo of 275 volts, which furnishes power to five Jeffrey Manufacturing Company cutter-bar mining machines, three Link Belt Manufacturing Company chain machines and to one Hawkeye motor used in slope for pumping water to bottom of shaft. At 11½ Shaft, which is used for ventilation and for hoisting and lowering men and material, a 100-horsepower Fort Scott Foundry and Machine Company engine with 14 by 24 inch cylinders and 5 feet by 4 feet 6 inch drum is in use.

Ample boiler capacity to furnish steam for all engines is on hand, and the ventilation throughout the mine is abundant. There have been six accidents at this mine during the past year, none of which were fatal. Details being given under the general head of accidents. Product is shipped over the Missouri, Kansas and Texas Railroad.

SHAFT MINE NO. 5.

This mine was commenced in the year 1895, being first commenced on the long-wall system, but has now been extended on the room and pillar plan. The average thickness of the coal is 3 feet 4½ inches, with a dip of 4½ inches to the yard in a direction S. 27° W. The shaft is 482 feet deep. Slope has been sunk 1,200 feet and plane driven to the rise 1,200 feet. Ten entries, from which 60 rooms have been turned, are in operation. Hoisting shaft is 7 by 12½ feet, with third compartment 3 by 7 feet. The average number of men employed is 150. Equipment is 160-horsepower double Litchfield hoisting engine, 16 by 30 inch cylinders and 8 by 7 foot drum. On the plane, coal is lowered by means of an Ottumwa 75-horsepower double engine, 9 by 10 inch cylinders and 4 by 4 foot drum. On slope, coal is hoisted by means of a 100-horsepower double Ottumwa engine, 10 by 12 inch cylinders and 3½ by 5½ inch drum. Screenings are elevated by means of a 16 by 16 inch single Erie City engine. An Ide & Son single engine, 10 by 12 inch cylinders, drives a 120-kilowatt Westinghouse dynamo of 175-horsepower, 275 volts. Two locomotives for hauling coal in main entries are also driven by electric power; also one 3½ by 4 inch pump and eight mining machines. There were eight accidents in this mine during the past year, six of which proved fatal. Product is shipped via the Missouri, Kansas and Texas Railroad.

SHAFT MINE NO. 8.

This mine was reopened in 1899, having been in operation prior to that time and temporarily suspended. The coal is 3 feet 4½ inches thick, with a dip of 4½ inches to the yard, direction being S. 59° W. The shaft is 272 feet deep. Hoisting compartment is 10 feet 8 inches by 5 feet 10 inches, with a third compartment 3 feet by 5 feet 10 inches. Slope has been sunk 900 feet and plane 1,200 feet to the rise. Five entries, from which 30 rooms have been turned, are now in operation. The average number of men employed is 100. Equipment consists of a 160-horsepower double Litchfield engine for hoisting, with 8 by 7 foot drum. A 12 by 24 inch single Crane Brothers engine is used for hoisting on the slope. For elevating screenings an Erie City 9 by 10 inch engine is used. A Ridgeway electric engine with 15 by 16 inch cylinders drives a 100-kilowatt Westinghouse dynamo of 160-horsepower, with voltage of 250, which furnishes power for two Jeffrey chain-breast mining machines. There has been but one accident at the mine during the year, which was not fatal. Product is shipped via the Missouri, Kansas and Texas Railroad.

CROWDER & CO. S SLOPE.

This slope was commenced in 1900. Coal is 3 feet 2 inches thick with a dip of 4½ inches to the yard, direction S. 59° W. Slope has been sunk 600 feet. Twenty men are employed. A 50-horsepower single hoisting engine, 10 by 15 inch cylinders, 4 by 4 inch drum, furnishes motive power.

CLELLAND'S SLOPE

This slope was commenced in 1893. Coal is 3 feet 6 inches thick with a dip of 5 inches to the yard, direction N. 32° E. Slope is sunk 900 feet. Fifteen men are employed. A 50-horsepower single hoisting engine, 12 by 24 inch cylinders with drum, is in use.

Following are the rules in force in the mines of the Osage Coal and Mining Company:

DUTIES OF THE BOSSES.

RULE 1. Each fire boss shall enter the mine before the men have entered it, and before proceeding to examine the same he shall see that the air current is traveling in its proper course; and if he finds the air traveling properly, then he shall proceed to examine the workings.

RULE 2. He shall not allow any person except those duly authorized to enter or remain in any part of the mine through which a dangerous accumulation of gas is being passed in the ventilating current from any other part of the mine.

RULE 3. On entering the mines in the morning before the men have entered he shall proceed to examine the same and mark all rooms or working places in the following manner: The day of the month, thus, 30, indicates that inspection has been made and that the room or working place is free from fire damp. Two large crosses with the day of the month between them, thus, X 30 X, indicates the presence of fire damp and extreme danger. These marks must be made on a cap piece or other timber and laid in the roadway at mouth of room or entrance to working place.

RULE 4. After complete examination has been made he shall proceed to the bottom of the shaft and signal to the engineer that the workmen may now descend the shaft. In mines where there are more than one fire boss each fire boss shall allow only such men as work in the portion examined by him to proceed to their working places, and shall detain all others until the arrival of the fire boss who has examined their working places. Should he have found explosive gas or fire damp in any of the working places he shall personally notify the men working in such places as to the danger and warn them not to proceed to work until he has removed the danger. After notifying the men working in the places where he has discovered the fire damp, it will be his duty, as speedily as possible, to take the necessary steps to remove the fire damp and render the place safe for work. He will then notify each man that his place is now free from fire damp. In removing the fire damp it will be his duty to see that the gas so removed will not be carried on the naked lights in the return stairway.

RULE 5. It will be his special duty at all times to see that the air is moving in the proper manner; to look out for falls in the air courses and remove them, if possible. Should the fall or falls be too large for him to remove personally, he will notify the mine boss, whose duty it will be to assign sufficient force to have them removed as speedily as possible.

DUTIES OF MINERS.

RULE 6. As quantities of explosive gas or fire damp are generated in these mines the miner will take special care in entering his room or working place to notice the cautionary marks made for his protection, the marks being made on cap piece or other timber laid in the roadway at the mouth of room or entrance to working place, the marks being as follows: The day of the month, thus, 30, indicates that inspection has been made and that the room or working place is free from fire damp. Two large crosses with the day of the month between them, thus, X 30 X, indicates the presence of fire damp—extreme danger. In case the mark indicates the presence of fire damp, the workman shall not under any circumstances enter such room or working place until the fire boss has again inspected and rendered the place safe.

RULE 7. The miner shall each day examine his working place before beginning work, and take down all dangerous slate or otherwise make it safe by properly timbering the same before commencing to dig or load coal, and he shall at all times be very careful to keep his working place in a safe condition during working hours.

RULE 8. Should he at any time find his place becoming dangerous from any unusual condition that may have arisen, he shall at once cease working and inform the mine boss or his assistant of such danger.

RULE 9. Every miner shall order props, cap pieces, or other necessary timbers from the driver who brings him his cars. The miner shall always keep on hand a suffi-

cient quantity of props, cap pieces, and other necessary timbers, and shall order the same in advance, so that the driver may have time to bring them. Should the miner, from any cause, have no props or other necessary timbers on hand, he shall immediately cease work, vacate his working place, and report the fact to the mine boss.

RULE 10. All coal must be undercut at least 2 feet in rooms, and no shot be placed so that the point of the shot or any part of the powder shall be more than 4 feet from the face or more than 2 feet beyond the undercutting. All entries or other narrow work done under 12 feet wide to be undercut to full depth of holes drilled for blasting.

RULE 11. In case timbers are blown out, causing falls at the working face, owing to the negligence of the miner, he will be required to clear such falls at his own expense. The company will only assist where the roof was known to have been bad or there was no negligence shown on the part of the miner.

RULE 12. Any miner loading "bony" coal or any foreign matter with his coal shall for the first offense be suspended one day, for a second offense be suspended one week, and for the third offense shall be discharged.

DUTIES OF DRIVERS.

RULE 13. When a driver has occasion to leave his trip, or when his trip for any cause is stopped anywhere except at a regular station, he must see that it is left when possible in a safe place, secure from cars or other dangers or from endangering drivers or other trips following, and if the trip is left in a main hauling way, he must go back and notify approaching drivers, if any, of the existing obstruction, that they may be enabled to stop their trips and avoid collisions.

RULE 14. The driver must take care in taking his trip down grade to have his sprags so adjusted that he can keep the cars under control and thus prevent accidents.

RULE 15. On receiving orders from workmen for props, cap pieces, or other necessary timbers, the driver will bring the same with all possible dispatch, and in case for any reason they can not be obtained, he will report the fact to the workman so ordering and also to the mine boss.

DUTIES OF ROPE RIDERS.

RULE 16. The position of rope rider being one of peculiar hazard, he must use special care and precaution to avoid the dangers incident thereto.

RULE 17. He shall exercise great care in seeing that all couplings are safe for use, and see that all trips are properly coupled before starting; and should he at any time see any material defect in the rope, link, hook, or chain, he will immediately remedy such defect, and if unable to do so he shall detain the trip and report the matter to the mine boss.

DUTIES OF CAGERS OR MEN ASSIGNED TO THAT POSITION.

RULE 18. The cager shall be at his proper place at the bottom of the shaft when men begin to descend in the morning and remain there until hoisting of coal commences. He shall see that men are safely off the cage and then signal the engineer. He shall be at his proper place at the time the hoisting of coal ceases and men commence to be hoisted in the evening, and shall see that not more than six persons get on the cage at any one time, and when they are safely on the cage he shall signal the engineer to hoist them. The man acting as cager during the hoisting of coal shall see that all cars are held safely on the cage by the catch provided for that purpose before signaling the engineer. He shall not allow any materials or tools of any kind to be placed on the same cage with men or boys, nor on the opposite cage when men are being hoisted out of the mine or lowered into it, except for the purpose of repairing the shaft or the machinery therein. The men shall place their tools in cars provided for that purpose, which car or cars shall be hoisted or lowered before or after the men have been hoisted or lowered, and he shall immediately inform the mine boss of any violation of this rule. In signaling the engineer the cager shall use the signals as directed in general rule No. 43.

DUTIES OF SHOT FIRERS

(The rules governing shot firers apply only to mines worked on the room and pillar plan, such as mines Nos. 10 and 11, and do not apply to mines worked on the long-wall plan, such as mine No. 5.)

RULE 19. Shot firers must not fire any shots unless the coal is properly cut in accordance with the two following sections, nor unless said shot is otherwise and in all respects proper and safe.

SEC. 1. All coal must be undercut at least 2 feet in rooms, and no shot to be placed so that the point of the shot or any part of the powder shall be more than 4 feet from the face or more than 2 feet from the undercutting.

SEC. 2. All entries or other narrow work under 12 feet wide to be undercut to full depth of holes drilled for blasting.

RULE 20. Shot firers must fire only one shot at a time in any separate split of air, and the following shot must not be lit until the smoke has cleared away.

RULE 21. No shot to be fired while anyone except the shot firers are in the mines, except by special permission of the mine boss, and the shot firers shall not enter the mine for the purpose of firing until all of the men are out of the mine.

RULE 22. Shot firers must commence firing at a point farthest from the intake airway, and proceed with the firing in a direction opposite to that in which the air is traveling.

DUTIES OF TOPMEN OR MEN ASSIGNED TO THAT POSITION.

RULE 23. He shall be at his proper place in the morning from the time the persons begin to descend into the mine, and shall remain there until the hoisting of coal begins. He shall see that no more than six persons get on the cage at any one time, and he shall not open the gate until cage has been placed in position to receive the men. After the hoisting of coal ceases in the evening it shall be his duty to be at his proper place until all of the men are hoisted from the mine. He shall see that men get safely off the cage, and shall then signal the engineer in the proper manner. He shall not allow any tools or material of any kind to be placed on the same cage with men or boys, nor on the opposite cage when men are being lowered into the mine, except for the purpose of repairing the shaft or the machinery therein. The men shall place their tools in cars provided for that purpose, which car or cars shall be lowered before or after the men have been lowered. In signaling the engineer the topman shall use the signals as directed in rule No. 43.

RULE 24. At shafts not using self-dumping cages the topman shall see that the stops for cages to rest upon are kept in good working order, and he must remove loaded cars carefully, and in placing empty cars on cage he must see that the car is securely held by the catch provided for that purpose before signaling the engineer.

DUTIES OF ENGINEERS.

RULE 25. It shall be the duty of the engineer to keep careful watch over his engine and all machinery under his charge and see that the same is in proper working order before attempting to raise or lower men or material.

RULE 26. He shall see that the boilers are properly cleaned and inspected at proper intervals and see that the steam pressure does not exceed at any time the limit allowed by the superintendent.

RULE 27. He shall not allow any unauthorized person to enter the engine house; neither shall he allow any person to handle or run the engine without the permission of the superintendent.

RULE 28. When workmen are being raised or lowered he shall take special precautions to keep the engine well under control.

RULE 29. The engineer will observe and operate his engine in accordance with the general and special rules governing signals. (See general rule No. 43.)

DUTIES OF FIREMEN.

RULE 30. Every fireman or other person in charge of a boiler or boilers for the generation of steam shall keep a careful watch of the same. He shall see that the steam pressure does not exceed at any time the limit allowed by the superintendent. He shall frequently try the safety valves and shall not increase the weight on the same. He shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this he shall report the same without any delay to the engineer and take such other action as may under the peculiar circumstances be necessary for the protection of life or the preservation of property.

RULES AND REGULATIONS IN REGARD TO POWDER.

RULE 31. All persons, except those appointed by the coal company or the mercantile company having charge of the powder sales, are prohibited from entering the powder house under any pretense whatever.

RULE 32. The use of tobacco in any form by any person while in the performance of his duties in and around the powder house is strictly prohibited. Neither shall any person enter a powder house with matches or any other ignitable material about his person.

RULE 33. No powder keg shall be opened in any other manner than by the slide or lead plug provided for that purpose. It is strictly prohibited to use a plug of any kind to drive through the end of a powder keg for the purpose of opening the same.

RULE 34. It will be the duty of those authorized who perform this work to see that no person enters the powder house while said work is in progress; also to govern their actions by the above regulations.

RULE 35. No lights of any kind shall be allowed in or around the powder house.

RULE 36. No powder or high explosives shall be taken into the mine by any one man in greater quantities than required for use in one day (unless such quantity be 5 pounds or less), and all powder shall be sent or carried into the mine in metallic canisters.

RULE 37. Powder must be kept in proper air-tight powder cans, and the cans must be kept in a close tight-locked box, said box to be at least 300 feet from any working face and only at points designated by the mine boss.

RULE 38. Whenever a workman shall open a box containing powder or other explosives, or while in any manner handling the same, he shall first place his lamp not less than 5 feet from such explosives in such a position that the air current can not convey sparks to it, and he shall not smoke while handling explosives.

GENERAL RULES

RULE 39. No person shall be allowed to enter any mine except employees working in the mine, without permission of the superintendent.

RULE 40. No person in a state of intoxication shall be allowed to go into or loiter about any mine.

RULE 41. No person shall be allowed to travel on foot to or from his work on any incline, plane, or slope when other good roads are provided for that purpose. As each mine is provided with a passway around the shaft at the bottom, all persons employed in the mine or others are strictly forbidden to cross over from one side of the shaft to the other side through the hoisting compartment under any circumstances whatever.

RULE 42. Workmen and all others are strictly forbidden to commit any nuisance, or throw into or deposit, or leave coal, dirt, or stones, or other rubbish in the air-courses or roads so as to interfere with, pollute, or hinder the air passing into or out of the mine.

RULE 43. In all shafts or slopes where persons, coal, or material of any kind are hoisted or lowered by machinery the following code of signals shall be used:

One signal.—To hoist coal or other material.

One signal.—To stop cage or car when in motion.

Two signals.—To lower cage or car.

Three signals.—That persons are to be hoisted, on hearing which the engineer will signal back "ready" by giving one signal. On hearing the last-named signal the persons will get on car or cage, and when they are safely on car or cage one signal shall be given the engineer to hoist. After the hoisting of coal has ceased in the evening and the 5 o'clock whistle has blown, it will only be necessary to give the first three signals for the first three cages of men hoisted, after which one signal, "ready," will be given for each cage until the men are all out.

Four signals.—That mules are to be hoisted, on hearing which the engineer shall signal "ready" by giving one signal. On hearing the last-named signal the mule will be placed on the cage, and when it is safely on the cage one signal, "ready," will be given the engineer to hoist.

Five signals.—Turn steam onto slope or underground engines.

Six signals.—Shut steam off from slope or underground engines.

RULE 44. No person shall go into any old or abandoned part of the mine or in any other place which is not in actual course of working without permission of the mine boss, nor shall they travel to and from their work except by the traveling ways provided and assigned for that purpose.

RULE 45. No person in the mine shall be allowed to enter any room or working place except the working place to which his duties call him. It is strictly forbidden for any person to visit a room or working place, except his own, either during the presence or absence of its proper occupants. All boys or other persons assigned to special posts as trappers or otherwise must remain at their posts while on duty.

RULE 46. All miners must be in the mine before the 7 o'clock whistle blows in the morning. Drivers must have their mules out of the stable and ready for work when the whistle blows at 7 o'clock.

RULE 47. Any person found with tools or powder belonging to another, or taking or using tools or powder belonging to another, without the owner's consent, shall, for the first offense, be fined \$2.50, and for the second offense he shall be discharged, such fines to be paid to the owner of the tools and collected at the company's office; and any person detected in exchanging checks on pit cars shall be immediately discharged.

RULE 48. Any miner or employee who shall damage any signal bell or wire, brattice, air way, or door, or open a door and not close it again, or do anything by which the safety of the men or mine may be endangered, shall be promptly discharged.

RULE 49. Whenever it shall be the duty of any person to go into the "sump" or space below the cage at the bottom of the shaft, for the purpose of cleaning out, removing dirt, or otherwise, they shall first place a prop or props of wood or iron in such a manner as to arrest the cage should it from any cause be made to descend, and thus secure themselves or others from possible danger.

RULE 50. All employees who desire to absent themselves from work must notify the foreman under whom they work the day before; and anyone absent without permission will, for the first offense, be suspended three days, and for the second offense be suspended one week, and for the third offense be discharged, except in case of sickness.

RULE 51. Any persons, except those duly authorized, are forbidden to meddle or tamper in any way with any electric or signal wire about the mine.

RULE 52. No miner or other employee shall be entitled to receive his time at the company's office until he shall obtain from the mine boss a clearance card; and in case of employees renting a company house, a note must be obtained from superintendent's clerk stating the amount of rent due.

Adopted July 24, 1897.

WILLIAM CAMERON,
Superintendent.

R. M. McDOWELL,
General Manager.

Approved.

The following is the scale of wages paid by the Osage Coal and Mining Company:

Weldmen.....per month..	\$67.00	Carpenter.....per day..	\$2.50
Dumpers.....per day..	1.80	Laborer.....do.....	1.60
Top hands.....do.....	1.60	Pit boss.....per month..	80.00
Master mechanic.....per month..	100.00	Timber boss.....per day..	2.35
Hoisting engineers.....do.....	75.00	Boss drivers.....do.....	2.35
Slope engineer.....per day..	2.00	Track layers.....do.....	2.25
Firemen.....do.....	1.80	Drivers.....do.....	2.10
Blacksmiths.....per month..	70.00	Cagers.....do.....	2.10
Helpers.....per day..	1.60	Gobbers.....do.....	2.10
Team and man.....do.....	2.50	Couplers.....do.....	1.50
Stable boss.....per month..	60.00	Trappers.....do.....	.90
Oilers.....per day..	1.35	Mine run coal.....per ton ¹ ..	.60
Screened coal.....per ton ¹ ..	.75	Narrow work.....per yard..	1.60
Entry work.....per yard..	2.00	Machine runner.....per day..	2.65
Room turning.....each..	5.00	Loaders:	
Machine helper.....per day..	2.40	Mine run.....per ton..	.24
Teamster.....per month..	42.50	Screen.....do.....	.30

DEDUCTIONS.

Smithing.....per month..	\$0.60	Powder.....per keg..	\$2.50
House rent.....do.....	2.50	Doctor.....per month..	1.00
Small house.....do.....	4.50	Territory permits.....do.....	.20
Large house.....do.....	4.50		

¹2,000 pounds

4. SOUTHWESTERN COAL AND IMPROVEMENT COMPANY.

This company operates at Coalgate, Ind. T. The officials are A. A. Allen, general manager; I. M. Fleming, superintendent; D. C. Welch, auditor; R. P. Roach, cashier. General offices are at Parsons, Kans. Shaft mines Nos. 4 and 9 are in operation. Considerable coal has been

stripped during the past year. The following letter from Mr. D. C. Welch gives tonnage, etc.:

SOUTHWESTERN COAL AND IMPROVEMENT COMPANY,
Parsons, Kans., July 31, 1901.

Mr. L. W. BRYAN,
United States Mine Inspector, South McAlester, Ind. T.

DEAR SIR: Replying to your favor of July 17, asking for our standard tonnage of each mine at Coalgate, beg to say that we have been so very much rushed here that it has been impossible to get this work up for you until now. Below you will find a statement of tonnage and number of men employed:

Mine No. 4.....	tons..	75,818
Mine No. 9.....	do....	90,306
Drift and strip.....	do....	18,940
Total	do....	185,064
Average number of men employed.....		370
Number of days worked.....		300

As we do not issue the powder to our men at Coalgate, you can no doubt get this information from J. B. McDougall, who furnishes it, but if you will compare this with last year's sale of powder you can arrive at a very close estimate.

Your letter has been turned over to Superintendent Fleming, who may wish to give information concerning mine matters in general.

Yours, truly,

D. C. WELCH.

SHAFT MINE NO. 4.

This mine was opened in 1892. Average thickness of coal is 4 feet 4 inches, with a dip of 5 inches to the yard in an eastern direction. Shaft is 150 feet deep. Hoisting compartment is 7 by 14 feet, third compartment being 7 by 3½ feet. Slope is sunk 1,000 feet. Seven entries, from which 80 rooms are turned, are now in operation. The average number of men employed is 175. Equipment consists of 160-horsepower double western engines for hoisting, with 16 by 28 inch cylinder, 5½ by 6 foot drum. Slope engine is a 60-horsepower single Litchfield engine, 12 by 20 inch cylinders, and 5 by 6 foot drum. Boiler capacity is ample and ventilation abundant. Product is shipped from Coalgate via the Missouri, Kansas and Texas Railroad.

SHAFT MINE NO. 9.

This mine was opened in 1899. Average thickness of coal is 4 feet 6 inches. Dip is 7 inches to the yard in a southern direction. Shaft is 325 feet deep. Hoisting compartment is 8 feet by 12 inches, with third compartment 7 by 3½ feet. Slope is sunk 600 feet to the dip and plane 1,600 feet to the rise. Ten entries are driven, from which 90 rooms have been turned. Air shaft is 50 feet deep, 6 by 8 feet. The average number of men employed is 210. Equipment consists of a Webster, Camp & Lane double hoisting engine, 160 horsepower, cylinders 16 by 30 inches, with drum 7 by 8 feet. Slope engine is a single 50-horsepower 12 by 18 inch engine, with 5 x 6 foot drum. Plane is equipped with 80-horsepower double Ottumwa engine, 15 by 16 inch cylinders, and 5 by 5 foot drum. Boiler capacity is ample and ventilation abundant. Product is shipped from Coalgate via the Missouri, Kansas and Texas Railroad.

DRIFT AND STRIP PITS.

At the strip pits a slope is sunk 900 feet. Four entries with 30 rooms are turned. Ventilation is provided by means of a 40-foot shaft 5 by 6 feet. Sixty men are employed. A 40-horsepower single engine with 10 by 14 inch cylinder and 4 by 5 foot drum.

Following is the scale of wages paid by the Southwestern Coal and Improvement Company:

Weighmen	per month..	\$65.00	Teamster	per month..	
Dumpers	per day..	1.80	Carpenter	per day..	2.50
Top hands	do.....	1.60	Laborer	do.....	1.60
Master mechanics	per month..	95.00	Pit boss	per month..	95.00
Hoisting engineers	do.....	75.00	Timber boss	do.....	
Slope engineer	do.....	60.00	Boss drivers	per day..	2.35
Firemen	per day..	1.60	Track layers	do.....	2.25
Blacksmiths	per month..	70.00	Drivers	do.....	2.10
Helper	per day..	1.80	Cagers	do.....	2.25
Team and man	do.....	2.50	Gobbers	do.....	2.10
Stable boss	per month..	45.00	Couplers	do.....	2.10
Oilers	per day..	1.00	Trappers	do.....	.75
Screened coal	per ton..	.75	Mine-run coal	per ton..	.60
Entry work	per yard..	2.06	Narrow work	per yard..	1.60
Room turning	each..	5.00			

DEDUCTIONS.

Smithing	per month..	\$1.00	Doctor	per month..	\$1.00
House rent	per month..	\$3.50 to 4.75	Territory permits	do.....	.20
Powder	per keg..	1.75			

5. McALESTER COAL AND MINERAL COMPANY AND EASTERN COAL AND MINING COMPANY.

These two companies have now seventeen openings in operation, there being one shaft and the remainder being slopes covering a distance of 4 miles along the crop of the coal. These slopes are provided, some of them, with engines for hoisting, and those recently opened are at present operated by gin power. A portion of the slopes are ventilated by fans and a portion by furnaces. Escapements are furnished for the men, or else are in course of construction.

The above-named two companies are extending their operations to a very great extent, having constructed during the past year several miles of railroad through their property and having in the meantime, while opening a large number of mines, kept their mines Nos. 1, 2, 6, and 7, in continuous operation. They have been buying and erecting the necessary machinery and preparing for a very large output of coal.

6. WILBURTON COAL AND MINING COMPANY.

This company operates five slope mines near the town of Wilburton. Slope mines Nos. 1 and 2 are double, the one being immediately above the other. Slopes Nos. 3, 4, and 6 are single. A large amount of improvement has been made at these mines; shaker screens have been put in and preparation made for an increased output. Mr. William Bushby is president and general manager. General offices are at Parsons, Kans. Shipment of product is made over the Choctaw, Oklahoma and Gulf Railroad from Wilburton Ind. T.

SLOPE MINES NOS. 1 AND 2.

These slopes were both commenced in the year 1898. Slope No. 1 is 500 feet in length; average thickness of coal is 6 feet, with a dip of 24 degrees to the north. Slope No. 2, on the upper vein, is 600 feet

in length, and the coal is $4\frac{1}{2}$ feet thick, with a pitch of 22 degrees to the north. Both slopes are sunk to a distance of 700 feet. Seventeen entries, from which 85 rooms are turned, are in operation. There are two air shafts communicating with Slope No. 1, 65 feet and 35 feet, respectively, and 6 by 8 feet in size. Two air shafts also communicate with Slope No. 2, each 25 feet in depth and 6 by 6 feet in size. These air shafts also furnish escapement, and are suitably provided with stairways for that purpose. About 200 men are employed in the slopes, and the daily output is 250 tons. For hoisting purposes in both slopes a 175-horsepower engine, manufactured by the Riverside Iron Works, in Kansas City, is used, with 14 by 24 inch cylinders, 7-foot drum, brake, and all necessary appliances. For furnishing air to Slope No. 1 a 12-foot Alton fan is used, while a 10-foot fan manufactured by the South McAlester (Ind. T.) Foundry Company furnishes sufficient air at Slope No. 2. No electric machinery is used in the mines of the Wilburton Mining Company. This mine is well equipped in all particulars, and the requirements of the law are fully met.

There were five accidents at these slopes last year, one of which proved fatal.

WILBURTON SLOPE NO. 3.

This slope was commenced in the year 1898. The coal is $4\frac{1}{2}$ feet in thickness and pitches 17 degrees to the north. The slope is sunk 550 feet. Four entries are turned, and 26 rooms are in present operation. Air shafts are 18 and 20 feet deep, 5 by 5 feet and 6 by 6 feet. The average number of men employed is 37, and the daily output is about 100 tons. A Lidgerwood double engine of 30 horsepower, with cylinders 7 by 10 inches, furnishes hoisting power, and is supplied with steam by a 54 inch by 14 foot boiler manufactured by Palmer & Sons, of Kansas City. A 10-foot fan manufactured by the South McAlester (Ind. T.) Foundry Company supplies sufficient air. Escapements are provided by the air shafts, which are suitably provided with stairways. The mine is fairly well equipped, and the requirements of the law are complied with.

There was one accident at the mine last year, which proved fatal.

WILBURTON SLOPE NO. 6.

This slope, which was commenced during the year 1899, is sunk 580 feet. The coal is $5\frac{1}{2}$ feet thick and has a dip of 26 degrees to the north. Seven entries are turned and 20 rooms at present in operation. Air shafts are 17 and 22 feet, respectively, $4\frac{1}{2}$ by $4\frac{1}{2}$ feet in size. Fifty men are employed, and the daily output is about 125 tons. Coal is hoisted by a 30-horsepower double Crook engine with 7 by 10 cylinder, with drum, brake, and other appliances, steam for which is supplied by a 42 inch by 12 foot locomotive portable boiler. A 12-foot Alton fan furnishes air. Escapement is had by means of the air shaft, which is provided with suitable stairway. All the requirements of the law are complied with. There was one accident at this mine during the past year; not fatal.

SLOPE MINE NO. 4.

This slope was commenced during the present year. The average thickness of the coal is $4\frac{1}{2}$ feet. The dip is 15 degrees to the north. Slope is sunk 335 feet. Four entries are turned and four rooms are

in operation. Air shaft is 18 feet deep, 6 by 7. The average number of men employed is 23. Equipment consists of a 150-horsepower double Riverdale Iron Works engine, 14 by 24 inch. cylinders, with 6 by 8 foot drum. Suitable boiler capacity is at hand. Ventilation is good and the requirements of the law are fully met.

Weighmen	per month..	\$75.00	Teamster	per month..	\$40.00
Dumpers	per day..	1.50	Carpenter	per day..	2.00
Top hands	do.	1.50	Laborer	do.	1.50
Master mechanics	per month..	100.00	Pitt boss	per month..	125.00
Hoisting engineers	per day..	2.00	Timber boss	per day..	2.50
Slope engineer	do.	2.00	Boos drivers	do.	2.75
Firemen	do.	1.80	Tracklayers	do.	2.50
Blacksmiths	do.	2.50	Drivers	do.	2.10
Helpers	do.	1.75	Cagers	do.	2.10
Team and man	do.	2.50	Gobbers	do.	2.10
Stable boss	per month..	30.00	Couplers	do.	1.25
Oilers	per day..	1.25	Trappers	do.	.90
Screened coal	per ton..	.....	Mine run coal	per ton..	.60
Entry work	per yard..	1.60	Narrow work	per yard..	1.60
Room turning	each..	5.00	Machine runner	per day..	2.50
Machine helper	per day..	2.10	Loaders	per ton..	2.10

DEDUCTIONS.

Smithing	per month..	\$0.50	Doctor	per month..	\$1.00
House rent	do.	4.00	Territorial permits	do.	.25
Powder	per keg..	2.25	Hospital	do.	.....

7. KANSAS AND TEXAS COAL COMPANY.

The officials of this company are: B. F. Hobart, president, St. Louis, Mo.; W. P. Heath, secretary and treasurer, St. Louis, Mo.; F. E. Doubleday, general manager, Pittsburg, Kans.; H. Wilson, superintendent, Carbon, Ind. T.

The property operated by this company consists of three slope mines near Carbon, Ind. T., on a branch of the Missouri, Kansas and Texas Railroad from McAlester, viz, mines Nos. 76, 77, and 78, and a slope mine at Doubleday, on the St. Louis and Santa Fe Railroad, known as mine No. 72.

CARBON MINE NO. 76 (FORMERLY 50).

This slope was commenced in 1895 and is now down 2,500 feet. Coal is 3½ feet thick, with a dip of 13 degrees to the north. Air shaft is 40 feet deep and 8 by 10 feet in size. The average number of men employed is 100, and the average daily output, when running, is 200 tons. Hoisting is done by double link-motion geared engines, with 10 by 16 inch cylinders, 6-foot drum, with brake and all necessary appliances. Ventilation is supplied by two 12-foot Crawford & McCrimmon fans. Steam is generated by two 2-flue boilers, 42 inches by 20 feet, and two tubular boilers 48 inches by 16 feet. There were two accidents during the past year, one of which proved fatal.

CARBON MINE NO. 77 (FORMERLY 52).

This slope was commenced in 1896 and is now sunk about 2,400 feet. The coal is 3½ feet thick, and has a dip of 13 degrees to the north. Twelve entries and 160 rooms are in present operation. Air shaft is 20 feet deep and 8 by 10 feet in size. About 225 men are employed in this mine, and the daily average output, when running, is 350 tons. This mine is supplied with a 100-horsepower Norwalk compressor, which furnishes air to operate ten Harrison punching machines. Hoisting is done by a pair of direct-acting engines, with 12 by 20 inch

cylinders and 5-foot drum, with brake and all necessary appliances. Ventilation is supplied by a 12-foot Crawford & McCrimmon fan. Steam is generated by two cylindrical boilers and two 60-horsepower tubular boilers. There was one accident, fatal, at this mine during the past year.

CARBON MINE NO. 78 (FORMERLY 67).

This slope mine was commenced in 1899 and is now sunk 1,000 feet. Coal is 3½ feet thick, with a dip of 18 degrees to the north. This mine produces about 200 tons of coal per working-day. A geared engine with 18 by 24 inch cylinders, with 15-foot drum, equipped with efficient brake and other appliances, is used for hoisting, and ventilation is furnished by means of a 20-foot Springfield fan. Two 75-horsepower boilers furnish necessary steam.

There were two accidents at this mine during the past year, one of which proved fatal.

DOUBLEDAY MINE NO. 72.

This slope is sunk 1,000 feet. The coal is 3½ feet in thickness, with a dip of 10 degrees. Four entries are turned, with about 30 rooms in present operation. About 60 men are employed and the average daily output per working-day is about 150 tons. Hoisting is done by means of a 10 by 12 Lidgerwood engine with 5-foot drum, furnished with steam by a 50-horsepower boiler.

KANSAS AND TEXAS COAL COMPANY,
St. Louis, July 19, 1901.

DEAR SIR: I have yours of the 17th instant, asking for a statement of our output at the mines in the Territory for the year ending June 30, 1901, and beg leave to hand you same herewith, which I think you will find will fill the bill.

Yours truly,

W. P. HEATH, *Secretary.*

Mr. L. W. BRYAN,
United States Mine Inspector South McAlester, Ind. T.

Information for mine inspector for Indian Territory for the year ending June 30, 1901.

Mine.	Number of days worked.	Number of kegs of powder.	Average number of employees.
No. 76 (formerly No. 50)	231	2, 075	127
No. 77 (formerly No. 52)	240.1	3, 870	218
No. 78 (formerly No. 67)	244.2	968	76
No. 72 (Doubleday).....	131.4	377	39

TONNAGE.

Mine.	Lump.	Mine run.	Screenings.
	Tons.	Tons.	Tons.
No. 76.....	12, 351	9, 378	8, 157
No. 77.....	86, 151	6, 598	24, 655
No. 78.....	7, 704	1, 212	5, 084
No. 72.....	9, 753	.....	155
Total	65, 959	17, 188	33, 051

Grand total, 121,196 tons.

8. MEXICAN GULF COAL AND TRANSPORTATION COMPANY.

The property of this company during the past year passed into the hands of a receiver, Mr. Franklin Bache being appointed by the court.

The property consists of a coke plant with washer at Alderson, Ind. T., and mines and coke plant at Howe, Ind. T. At Alderson, Ind. T., this company operates 30 coke ovens, having each a capacity of 3 tons every seventy-two hours. A coke washer operated by a 60-horsepower engine with two 60-horsepower boilers cleanses the slack.

At Howe there are two shafts and a slope. The coal is 3 feet 6 inches thick, with a dip of 10 inches to the yard, dipping to the north. No. 1 shaft is 105 feet deep and slope is sunk 1,700 feet. There are 14 entries and 73 rooms in operation. Hoisting shaft is 8 by 12 feet. Equipment is a 75-horsepower Murray double engine, with 10 by 12 inch cylinders and 4 by 6 foot drum. Slope engine is 75-horsepower Murray engine. No. 2 mine has 100-horsepower double-gearred 12 by 18 Lidgerwood engine, with 5 by 8 by 10 drum. One hundred coke ovens are built and in operation, the coke manufactured being of good quality. A 50-horsepower Nagle single direct-acting engine at the coke plant and a 10-horsepower sinking engine is also in use. Steam is generated by four boilers. Nagle fan furnishes ventilation.

Product of both coal and coke is shipped over the Choctaw, Oklahoma and Gulf Railroad from Howe, Ind. T. There were no accidents reported for the past year.

Following is the scale of wages:

Weightmen	per month..	\$65.00	Teamster	per month..	
Dumpers	do.....		Carpenters	per day..	
Top hands	per day..	1.25, 1.50	Laborer	do....	1.25, 1.50
Master mechanics	per month..		Pit boss	per month..	90.00
Hoisting engineers	per day..	2.00	Timber boss	per month..	2.25
Slope engineer	per month..	50.00	Firemen	per month..	45.00
Tracklayers	per day..	2.50	Drivers	per day..	2.10
Blacksmiths	do....	2.50	Helpers	do....	1.75
Cagers	do....	2.00	Oilers	do....	1.00
Trappers	do....	1.00	Mine run coal	per ton..	.50
Entry work	per yard..	2.00	Narrow work	per yard..	1.60
Room turning	each..	2.80			

DEDUCTIONS.

Smithing	per month..	\$0.75	Doctor	per month..	\$1.00
House rent	do....	3.00, 5.00	Territory permits .....		.25
Powder	per keg..	2.00			

MEXICAN GULF COAL AND TRANSPORTATION COMPANY,

Howe, Ind. T., July 19, 1901.

DEAR SIR: Beg to acknowledge yours of the 17th, and below beg to hand you the information requested.

Number of tons coal mined July 1, 1900, to June 30, 1901, 96,052.90.

Average number of miners, 69 per day for 271 days.

Average number of topmen, 33 per day for 365 days.

Number of kegs of powder used, 4,800.

Yours truly,

FRANKLIN BACHE, Receiver.

Mr. L. W. BRYAN,

United States Mine Inspector, South McAlester, Ind. T.

9. MILBY & DOW COAL AND MINING COMPANY.

This is a point 4 miles east of Alderson, Ind. T., where the Milby & Dow Coal Company is operating two shafts on Brushy Creek. This company is incorporated under the laws of the State of Texas. Its

officials are Andrew Dow, president; Edwin Ludlow, consulting engineer; C. S. Wingate, superintendent. Offices are at Hartshorne, Ind. T. Following is a description of these shafts in detail:

SHAFT NO. 1 (FORMERLY KNOWN AS NO. 9).

This shaft was opened in 1898, and the average thickness of coal is 3 feet, with a dip of 7 degrees to the southwest. The shaft is 221 feet deep, and the slope has been sunk for a distance of 2,200 feet, with plane 250 feet. There are 12 double entries, off of which about 125 rooms are at present in operation. Hoisting shaft is 8 by 12 feet, with third compartment 8 by 8 feet. Air shaft is 50 feet deep and 6 by 6 feet. The average number of men employed by the company is 200, and the total output of coal is 300 tons. This mine is equipped with two double Litchfield engines of 300 horsepower, slide valve, one for hauling and the other for hoisting. Diameter of cylinders is 18 inches; length of stroke, 32 inches; crank pin, 4 inches; drum, 8 inches; steam, 5 inches; exhaust, 6 inches. The drum is 8-inch, first-motion. This mine is also equipped with a Marsh pump, built in 1899, with cylinder 6 inches, which is used on top. The hoisting rope is made by the Broderick & Buscom Rope Company. Steam for the above engines in this mine is furnished by two 60-horsepower boilers, and the shaft is equipped with self-dumping cages, the tippie also having basket scales, so that the coal can be weighed separately after it has passed over the screen, or together as mine run, as they may elect. The tippie is especially well constructed and convenient for the rapid handling of coal. There is also a rotary screen attached to this plant for separating the pea coal from the slack. Ventilation is had in this mine by a 12-foot fan, connected with an air course intersecting the main slope. Good air courses and traveling ways are maintained.

Following is the scale of wages allowed in this mine:

Weighmen	per month..	\$60.00	Teamster	per month..	
Dumpers	per day..	1.50, 1.75	Carpenter	per day..	1.50, 2.00, 2.50
Top hands	per day..	1.50	Laborer	per day..	1.50
Master mechanics	per month..	70.00	Pit boss	per month..	140.00
Hoisting engineers	do....	70.00	Timber boss	per day..	2.25
Slope engineer	do....	60.00	Boos drivers	do....	2.35
Firemen	do....	55.80	Track layers	do....	2.25
Blacksmiths	per day..	2.50	Drivers	do....	2.10
Helper	do....	1.75	Cagers	do....	2.25
Team and man	do....	2.50	Gobbers	do....	
Stable boss	per month..	40.00	Couplers	do....	1.75
Officers	per day..	1.00	Trappers	per day..	.90 to 2.00
Screened coal	per ton..	.95	Mine-run coal	per ton..	.65
Entry work	per yard..	2.30	Narrow work	per yard..	2.50
Room turning	each....	5.00	Machine runner	per day..	2.50
Machine helper	per day..	2.25	Loaders	per ton..	.40, .50

DEDUCTIONS.

Smithing	per month..	\$0.60	Doctor	per month..	\$1.00
House rent	per month..	3.00, 4.00, 6.00	Territory permits	do....	.25
Powder	per keg..	2.00	Hospital, per month, 10 per cent of doctor's fees.		

NO. 2 MINE.

This mine was opened in 1901. The average thickness of the coal is 3 feet 2 inches, with a dip of 10 degrees to the south. The shaft is 340 feet deep and the slope when connected will be 2,000 feet. There are 20 rooms in operation. Hoisting shaft is 8 by 12, with third compartment 8 by 8, and the air shaft is 52 feet deep and 8 by 8. The average number of men employed is 50, and the total output is 50 tons per

day. The equipment for hoisting and slope engines is the same as at No. 9, now No. 1. The scale of wages for this mine is the same as at No. 1.

Following are the rules in force in this company:

RULES OF THE MILBY & DOW COAL AND MINING COMPANY.

1. Miners or other workmen engaged in the mine shall read, and such as can not read shall have these rules read to them, and all persons engaged in the service of the company must be governed by these rules and regulations.

2. All miners must be in the mines before the 7 o'clock whistle blows in the morning. Drivers must have their mules out of the stables and all other company men must be prepared to start work when the whistle blows at 7 o'clock.

3. Miners must be careful in building lumps of coal on their cars, so as to prevent loss to both miner and company by coal falling off and causing wreck on slope.

4. That when any grievance may arise the party having the grievance must first try and adjust it with the pit boss. Should they fail to adjust it, they will refer it to the superintendent of the mines, whose decision shall be final.

5. Any employee feeling aggrieved in any respect must present his grievance to the pit boss in person, and shall not stop work by reason of any grievance while the matter is being adjusted, and all matters shall be adjusted outside of working hours.

6. That any person found with tools or powder belonging to another, or taking or using tools or powder belonging to another without the owner's consent, shall for the first offense be fined \$2.50 and for the second offense be discharged, such fines to be paid to the owners of the tools and be collected at the company's office; and any person detected in changing checks on the pit cars shall be immediately discharged.

7. All persons employed in the mine are strictly forbidden to ride up or down the slopes on the trips, and all men that may require to leave the mine while hoisting is being done must travel out the manways.

8. Miners are strictly forbidden from going into the next room for safety when firing a shot, but are required to go to a safe distance in the entry in order to be out of all danger.

9. All miners are strictly forbidden to fire a shot without giving warning of their intention to other workmen who may be near them, and must wait until all are at a safe distance.

10. All miners must run their loaded cars down their rooms to the parting, but not out on the entry. The drivers shall pull the empty cars to the face of the pitch rooms, miners to make height for mules.

11. In all the mines, unless otherwise designated, the time for firing shots shall be at 12 o'clock noon, when half-time is being worked, and 5 o'clock evening, when mine is working three-quarters or full time. Any employee detected in breaking this rule shall have his turn stopped for the first offense, and for the second offense shall be suspended one week; for the third offense will be discharged.

12. It shall be the duty of every miner to keep his room or working place well propped, in good order and repair, and to keep it perfectly safe in every way; and any miner who shall willfully or negligently or carelessly suffer his room to get out of order and repair shall, upon request, put same immediately in repair; and if he does not, the company will do the work required and charge the cost of the same to the miner.

13. All miners causing falls of rock, either by carelessness or by the reckless use of powder, blowing out the timbers or damaging brattice, will repair the same at their own expense, or, failing to do so, the company will repair and charge the cost of same to the miner.

14. When falls of rock take place in working places that have been properly timbered a reasonable amount (to be agreed upon between the pit boss and the miners) shall be paid for cleaning up the same, but where the falls occur through the blowing out of props or careless timbering no allowance will be allowed for repairing.

15. In places where roofs are dangerous and sufficient timber can not be secured, it shall be the duty of the workman or miner to notify the pit boss at once and stop work until the timber can be obtained. All timber and rails will be furnished by the company to each working place at the point of delivery of empty cars after the miner has ordered the same.

16. All drivers must take proper care of their mules, and any driver known to mistreat, abuse, or injure his mules in any way shall be discharged.

17. The fire boss (in mines where gas or fire damp is generated) or person acting in that capacity shall examine every working place in the morning before any miner or employee has entered the same, and shall mark the day of the month in some conspicuous place with chalk, which will be proof that he has examined the same; and under no circumstances must a miner or other employee enter a working place with an open lamp after being notified not to do so, or after finding a warning notice at the entrance of his working place.

18. It will be the duty of the fire boss, when he finds standing gas in any working place, to carefully dead-line the same by making one, two, or three crosses with chalk plainly on a piece of board, the number of crosses to signify the amount of gas in the working place. If the standing gas is in a room, he shall place the dead-line at the entrance to the same; if in an entry or air course, at a safe distance from the gas. The fire boss shall then notify the pit boss, who will see that the gas is carefully removed, so as to avoid accident, and any employee who shall knowingly or carelessly enter a place with an open lamp thus dead-lined shall be immediately discharged.

19. Miners employed in places where explosive gas is generated shall be furnished with a safety lamp, and if for any cause they leave their working places for even a short time, before reentering with an open lamp they shall first try the place with a safety lamp to see that no gas has collected in their absence.

20. No miner who has left the employ of the company, or who has been discharged from the same, shall be entitled to any pay or money due him until he shall have put his room in perfect working order, as required by the company. All miners leaving said employment will be required to procure the certificate of the pit boss that they have complied with the rule aforesaid before final payment or settlement shall be made.

21. If any miner shall leave an empty pit car in his room over night and the car should be lost or destroyed by the caving in of the room or the firing of a shot, or through any other carelessness, the full value of the pit car shall be charged to him.

22. Any miner or employee who shall intentionally damage any signal bell or wire, safety lamp, brattice airway or door, or open a door and not close it again, or do anything by which the safety of the men in the mine may be endangered, shall be promptly discharged.

23. In the event of death by accident in the mines employees shall be allowed one-half day for the funeral. In all other cases, any employee desiring to attend the funeral of a fellow-employee or a member of his family shall be at liberty to absent himself for that purpose after notifying the pit boss, but all other men shall be at work as usual.

24. No person shall be allowed to interfere with the employer's just right of employing, retaining, or discharging any person or persons whom the superintendent or mine boss having charge of the mine may consider proper, or to interfere, with threats or otherwise, with the right of any employee to work in any way or upon any terms and with whom he shall think proper and best.

25. All powder will be delivered at the top of the shaft after being ordered by the miner, and will be sent down by the company. The rope rider will be instructed to deliver it at the proper entries, but in no case will the company be responsible for powder lost after it has been delivered at the entry marked on the powder keg.

26. Miners in making up cartridges or charges of powder must put their lamps on the outside of their box and not less than 5 feet therefrom. Any miner found making charges or cartridges of powder with his lamp burning on his head shall for the first offense be suspended for three days, and for the second offense shall be discharged.

27. All miners must carefully remove all slate from their coal while loading it into their cars. Any miner sending out slate in his coal cars shall for the first offense be docked 500 pounds, for the second offense 1,000 pounds, and for the third be suspended one week.

28. The whistle will blow at 7 o'clock in the evening when the colliery will not work on the following day.

29. All employees who desire to absent themselves from work must notify the foreman under whom they work the day before. Anyone absent without permission will for the first offense be suspended three days, and for the second offense be suspended one week, and for the third offense shall be discharged. All miners absenting themselves three consecutive days without permission will be considered as having left the employ of the company, and their places will be assigned to others.

30. All miners are strictly forbidden from leaving their working places to enter any vacant or unoccupied place without permission of the foreman. Any violation of this rule will be followed by an immediate discharge.

31. Anyone detected violating the above rules for which no penalty is named will for the first offense be suspended for three days, for the second offense will be suspended for one week, and for the third offense will be discharged.

32. Any tenant of the company will be charged for any damage done to the house he occupies, and upon leaving the service, whether voluntarily or by discharge, will not be entitled to receive any part of the wages due him until he shall have vacated the premises occupied by him and presented the keys of the same at the office, and the house has been examined and the amount of damages deducted from his wages.

33. No meeting shall be held during the working hours of a hoisting day.

Entering the employment of the company is understood to be an acceptance of the foregoing rules.

EDWIN LUDLOW,
Superintendent of Mines.

10. McALESTER COAL MINING COMPANY.

The property of this company is situated at Buck, Ind. T., on a branch of the Missouri, Kansas and Texas Railway, about 4 miles from McAlester, Ind. T. This company operates three slope mines and one shaft, as per the following description:

SLOPE MINE NO. 2.

This slope was opened in 1896, and is sunk 2,000 feet, the coal being 4 feet thick, with a dip of 9 degrees to the west. There are three working entries and about 22 rooms in present operation. Hoisting is done by means of a Fort Scott 90-horsepower engine, with 18 by 24 cylinders, with 5-foot drum. Ventilation is had by Erie fan. About 80 men are employed in this mine.

SLOPE MINE NO. 3.

This slope was sunk in 1901, and is now opened to a distance of 300 feet. The average thickness of the coal is 4 feet, and average number of men employed 14. This slope is equipped with a Ledgerwood engine of 24 horsepower, with 6 by 10 cylinders and 30 by 4 drum. Ventilation is sufficient.

SLOPE MINE NO. 4.

This slope was sunk in 1900, and is now 400 feet in length. There are 2 entries and 2 rooms in operation. The slope employs an average of 10 men. Equipment consists of one Fairbanks, Morse & Co. engine of 20 horsepower, with 10 by 12 cylinders and 3 by 4 drum.

SHAFT NO. 12

This shaft was sunk in 1900 and is 119 feet deep. The coal is 4 feet thick, with a dip of 9 degrees to the west. There are 7 entries and 40 rooms now in operation. Hoisting shaft is 7 by 12, with third compartment 7 by 3½. Air shaft is 119 feet deep and is 6 by 10 feet. There are about 100 men employed. This shaft is equipped with one Litchfield 90-horsepower reciprocating double-type engine, with 16 by 30 cylinders and 6 by 7 drum. It is direct acting.

The following letter, received from this company, explains itself:

MCALESTER COAL MINING COMPANY,
Buck, Ind. T., July 24, 1901.

DEAR SIR: Herewith information asked for in your letter of the 16th.

Total output of coal from each mine for year ending June 30, 1901.

Date.	Mine.			
	No. 2.	No. 3.	No. 4.	No. 12.
1900.				
July.....	Tons. 2,248	Tons. 544	Tons. 400	Tons. 325
August.....	3,281	58	559	386
September.....	1,255		517	1,461
October.....	2,040		761	1,477
November.....	3,031		1,095	2,285
December.....	3,069		1,000	2,650
1901.				
January.....	3,078		1,030	3,755
February.....	2,994		1,112	4,058
March.....	3,096		777	3,421
April.....	3,042		640	3,472
May.....	3,241		621	4,502
June.....	2,793	168	314	5,046
Total.....	33,208	670	8,826	32,836

Total tonnage from all mines for the year.....	75,540
Total number of kegs of powder sold during the year.....	4,800
Average number of days worked per month.....	24
Average number of men employed.....	250

Yours, truly,

MCALESTER COAL MINING Co.,
Per J. W. MACKIE.

L. W. BRYAN,
United States Mine Inspector, South McAlester, Ind. T.

MINE NO. 2.

This is a slope mine about 2,100 feet in length. It was opened some five years ago by Montague & Phillips. It was then leased by them to the Kansas and Texas Coal Company, who operated it for some time, when the lease expired and it again became the property of Montague & Phillips, who last year sold it to the McAlester Coal Mining Company, of which company A. B. Donaldson is president.

This, in connection with 50 coke ovens which are now being constructed and with two other slopes, constitutes the property of this company.

Scale of wages.

Weighmen.....per month..	\$50.00	Dumpers.....per day..	\$1.00
Carpenter.....per day..	2.50	Top hands.....do....	1.60
Laborer.....do....	1.50	Master mechanics.....per month..	100.00
Pit boss.....per month..	90.00	Holisting engineers.....do....	75.00
Timber boss.....per day..	2.25	Slope engineer.....do....	75.00
Boss drivers.....do....	2.50	Firemen.....do....	60.00
Track layers.....do....	2.25	Blacksmiths.....do....	60.00
Drivers.....do....	2.10	Helper.....per day..	1.50
Cagers.....do....	2.25	Trappers.....do....	1.00
Mine run coal.....per ton..	.60	Entry work.....per yard..	2.00
Narrow work.....per yard..	1.60	Room turning.....each..	5.00

DEDUCTIONS.

Smithing.....per month..	\$0.60	Doctor.....per month..	\$1.00
House rent.....do....	4.00	Territory permits.....do....	.20
Powder.....per keg..	2.00		

11. THE DEVLIN-WEAR COAL COMPANY.

This company operates near Poteau, Ind. T., near which point and in Cavanal Mountain are two veins of coal which have been uplifted from the main basin. A slope is driven into the side of the mountain, full description of which here follows. We also append letters.

This mine was opened in 1900, and the average thickness of the coal is 4 feet, with a dip of 4 inches per yard in a westerly direction. The slope has been sunk 700 feet, and there are two planes of 700 feet each. Four entries have been opened, and 29 rooms are now in operation. The average number of men employed is 135. Equipment is one Lidgerwood engine, geared, which is located 100 feet from mouth of slope. This engine is 72 horsepower, double, with 12 by 12 inch cylinders and with drum 4½ by 7 feet.

Following is a letter from Mr. John J. O'Brien, superintendent:

THE DEVLIN-WEAR COAL COMPANY,
Poteau, Ind. T., July 31, 1901.

DEAR SIR: In compliance with your request of recent date, we herewith give you the production of our mines for the past year, and such other information as you desired.

Total output for the year.....	tons..	67,696
Total number of days worked.....		281
Average number of men employed.....		142
Number of kegs of powder.....		3,140

Of the total production of the coal given above, 20,620 tons were produced from our No. 3 mine and 47,076 tons from our No. 5 mine.

For your information we beg to state that our No. 3 mine has not been in active operation since last November; but we have pushed all development work on our new No. 5 mine, which is now in a position to produce 400 tons daily. Of this mine we expect most satisfactory results, as it will be connected with No. 3 shaft, and the entire coal haulage will come from No. 5 slope.

A new hoisting engine and a good fan is now being put up, as up to this time ventilation has been secured through two furnaces.

The work at the mines for the past year has been very steady, and the men are making good wages.

Respectfully,

THE DEVLIN-WEAR COAL COMPANY,
By JNO. J. O'BRIEN, Superintendent.

L. W. BRYAN,
United States Mine Inspector, South McAlester, Ind. T.

Following is the scale of wages in force in this mine:

Weightmen	per month..	\$60.00	Dumpers	per day..	\$1.50
Carpenter	per day..	2.12½	Top hands	do..	1.50
Laborer	do..	1.50	Pit boss	per month..	75.00
Hoisting engineers	per month..	60.00	Timber boss	per day..	2.12½
Firemen	per day..	1.80	Track layers	do..	2.25
Blacksmiths	do..	2.12½	Drivers	do..	2.25
Helper	do..	1.50	Team and man	do..	2.50
Stable boss	per month..	40.00	Oilers	do..	1.00
Mine run coal	per ton..	.60	Narrow work	per yard..	1.60
Entry work	per yard..	2.10	Room turning	each..	5.00

DEDUCTIONS.

Smithing	per month..	\$0.75	Doctor	per month..	\$1.00
House rent	do..	4.00 to 600	Territory permits .....		.25
Powder	per keg..	2.00			

12. PERRY BROTHERS.

The property of this firm consists of four slope mines, commenced, respectively, in 1896, 1899, 1900, and 1901. They are located at Coal-gate, Ind. T.

SLOPE NO. 1.

The coal in Slope No. 1 has an average thickness of 4 feet, which dips 8 inches to the west per yard. The slope has been sunk 1,400 feet, and there are 6 entries and 38 rooms now in operation. Air shaft is 38 feet deep by 5 by 5 feet. There are 85 men employed, and output averages 200 tons. Equipment consists of one South St. Louis Foundry engine of 85 horsepower, double cylinders 12 by 16 and drum 48 by 40 inches.

SLOPE NO. 2.

Average thickness of coal, 4 feet, with 7-inch dip to west. This slope has been sunk for 1,000 feet, and has 3 entries and 22 rooms now in operation. Air shaft is 29 feet deep and is 5 by 5 feet. There are 60 men employed in this slope, and the average output is 100 tons. Equipment consists of one Ottumwa Iron Works engine of 35 horsepower, with 10 by 12 cylinders and 30 by 25 drum.

SLOPE NO. 3.

Average thickness of coal is 4 feet, which has a dip of 8 inches to the west. This slope employs 76 men and is sunk for 700 feet, and has 4 entries and 45 rooms now in operation. Total output averages 200 tons. There is an air shaft 35 feet deep and 5 by 5 feet. The slope is equipped for hoisting with one Sanford 30-horsepower engine, with cylinders 8 by 12 and drum 30 by 30.

SLOPE NO. 4.

The average thickness of the coal in this slope is 4 feet, with a westerly dip of 8 inches. The slope has been sunk for 300 feet, and there are now in operation 2 entries and 7 rooms. Air shaft is 42 feet deep and is 5 by 5 feet. Forty men are employed, and the total output is 100 tons. Equipment for hoisting is composed of one Otis engine of 35 horsepower, with cylinders 8 by 12 and drum 36 by 40.

Following is given a statement received from this firm as to monthly total tonnage, etc.:

Month.	Mine.			Pits, etc.
	No. 1.	No. 2.	No. 3.	
1900.				
July	<i>Tons.</i> 2,130	891	85	<i>Tons.</i> 1,300
August	1,885	1,438	141	1,200
September	1,408	1,025	167	419
October	1,378	970	280	666
November	1,625	1,224	580	990
December	2,249	1,356	603	540
1901.				
January	2,788	1,730	811	.....
February	3,084	1,790	1,403	.....
March	2,712	1,409	2,100	.....
April	3,632	1,318	2,610	.....
May	3,417	1,723	3,280	.....
June	2,837	1,840	3,415	.....
Total	29,145	16,714	15,485	5,115

Grand total 66,459 tons.

We now employ 300 men.
 Have averaged 5-days per week last 12 months.
 Used 4,100 kegs powder.
 Have just completed railroad track to our No. 4 mine.

PERRY BROS.

JULY 20, 1901.

Following is the scale of wages:

Weighman	per day..	\$2.00	Dumpers	per day..	\$1.80
Carpenter.....	do....	2.50	Top hands	do....	1.60
Laborer.....	do....	1.60	Pit boss.....	per month..	85.00
Hoisting engineers.....	per month..	65.00	Boss drivers	per day..	2.35
Track layers.....	per day..	2.25	Blacksmiths.....	per month..	70.00
Drivers.....	do....	2.25	Helpers.....	per day..	50.00
Cagers.....	do....	2.25	Team and man	do....	45.00
Trappers.....	do....	1.00	Stable boss.....	per month..	.60
Screened coal.....	per ton..	.80	Mine-run coal	per ton..	.60
Entry work.....	per yard..	2.00	Narrow work.....	per yard..	1.60
Room turning.....	each..	5.00			

DEDUCTIONS.

Smithing	per day..	\$0.04	Territory permits.....		\$0.20
House rent	per month..	4.50	Powder.....	per keg..	1.75

13. OLA COAL AND MINING COMPANY.

The management of this company is under the direction of Mr. James Elliott, and the company's offices are at Ola, Ind. T. The property consists of several slopes as hereinafter described:

SLOPE NO. 1.

This slope is sunk on the lower vein and is about 700 feet long. The coal is about 5½ feet thick with a dip of 27° to the north. The Slope was sunk in 1897. There are 7 entries of which 40 rooms are now in operation. An air shaft 115 feet deep, 6 by 8 feet, affords excellent ventilation. This slope is equipped with a 60-horsepower single engine, with 12 by 20 cylinders and 5-foot by 5-foot 4-inch drum. It is pinion geared. The average number of men working in the slope is 100. One 12-foot fan furnishes ventilation.

No. 1½ has a Woermer & Son (New York) engine of 10 horsepower, single, with 7 by 11 cylinders and 1-foot 6-inch by 1-foot 6-inch drum. This is run as an auxiliary of No. 1.

SLOPE NO. 2.

This slope was commenced in 1898 and is sunk 600 feet. The coal here mined has an average thickness of 4 feet, with a dip of 27° to the north. There are 4 entries and 16 rooms now in operation. About 50 men are employed. There is an air shaft 17 feet deep and 5 by 5 feet. This slope is equipped with a Camp & Lane engine of 55 horsepower, with 10 by 20 cylinder and 4-foot 6-inch by 4-foot 6-inch drum. Pinion geared. Ventilation is ample.

SLOPE NO. 3.

This slope was also commenced in 1898 and has been sunk 350 feet. The coal has an average thickness of 5½ feet with a dip of 27° to the north. There are 4 entries and 16 rooms now in operation. Air shaft is 12 by 5 by 6 feet. An average of 50 men are employed. This slope is equipped with a Schoellhorn & Albrecht engine of 55 horsepower, with

10 by 20 cylinders and 3-foot 2-inch by 4-foot drum. Pinion geared. Ventilation is ample and sufficient.

The total output of coal of these slopes was 66,000 tons.

The following scale of wages is paid by this company:

Weghmen..... per month..	\$45.00	Dumpers..... per day..	\$1.50
Carpenter..... per day..	2.00	Top hands..... do.....	1.50
Laborer..... do.....	1.50	Master mechanics..... per month..	60.00
Pit boss..... per month..	90.00	Hoisting engineers..... do.....	50.00
Timber boss..... do.....	56.25	Slope engineers..... do.....	45.00
Firemen..... do.....	45.00	Track layers..... per day..	2.25
Blacksmiths..... do.....	50.00	Drivers..... do.....	2.10
Helper..... per day..	1.75	Cagers..... do.....	2.25
Team and man..... do.....	2.50	Oilers..... do.....	.75
Trappers..... do.....	.75	Mine-run coal..... per ton..	.60
Entry work..... per yard..	1.60	Narrow work..... per yard..	1.60
Room turning..... each..	5.00		

DEDUCTIONS.

Smithing..... per month..	\$0.75	Doctor..... per month..	\$1.00
House rent..... per month..	4.00 to 6.00	Territory permits..... do.....	.25
Powder..... per keg..	2.25		

14. J. B. McDUGALL.

This party is operating a mine near Coalgate, Ind. T., the same having been sunk in 1895. The slope has been sunk 1,900 feet, and has 6 entries and 80 rooms at present in operation. The coal is 3 feet 10 inches thick, with a dip of 5 inches to the yard to the northwest. Ventilation is plentifully supplied by an 80-foot deep air shaft, which is 6 by 8 feet. Equipment for hoisting is furnished by an Ottumwa Iron Works Company engine (patent friction drum hoisting), double, with cylinders 12 by 12 inches and drum 54 inches. Friction diamond cogs gearing. This engine is of 80 horsepower. There is also one Atlas engine of 23 horsepower for fan.

The following report has been submitted by this party:

Statement of coal mined at J. B. McDougall coal mine, Coalgate, Ind. T., from July 1, 1900, to July 1, 1901.

1900.		1901.	
	Tons.		Tons.
July.....	3,744	January.....	4,557
August.....	3,462	February.....	3,824
September.....	3,959	March.....	5,963
October.....	3,065	April.....	6,046
November.....	4,974	May.....	6,389
December.....	3,225	June.....	7,218
		Total.....	56,406
Kegs powder used.....			2,256
Average days worked.....			23
Men employed.....			80

Scale of wages.

Weghmen..... per month..	\$65.00	Helper..... per day..	\$1.80
Dumpers..... per day..	1.60	Team and man..... do.....	2.50
Top hands..... do.....	1.60	Stable boss..... per month..	40.00
Master mechanics..... per month..	80.00	Carpenter..... per day..	2.50
Slope engineer..... do.....	65.00	Laborer..... do.....	1.60
Firemen..... per day..	1.60	Pit boss..... per month..	110.00
Blacksmiths..... do.....	2.25	Timber boss..... per day..	2.25
Drivers..... do.....	2.25	Boss driver..... do.....	2.25
Oilers..... do.....	1.00	Track layers..... do.....	2.25
Trappers..... do.....	1.00	Screened coal..... per ton..	.75
Mine-run coal..... per ton..	.60	Entry work..... per yard..	2.00
Narrow work..... per yard..	1.60	Room turning..... each.....	5.00

DEDUCTIONS.

Smithing..... per day..	\$0.04	Doctor, per month (voluntary).	
Powder..... per keg..	1.75	Territory permits..... per month..	\$0.20

15. HAILEY COAL AND MINING COMPANY.

This property consists of a slope and shaft as per the following description:

HAILEY SLOPE.

This slope was sunk in the year 1898. The coal is 4½ feet thick, with a dip of 8 inches to the yard toward the northeast. The slope is sunk to a connection with the shaft. The air shaft is 40 feet deep and 6 feet square. The average daily output is 150 tons. Ventilation is had by means of a furnace. For hoisting, a 30-horsepower Griffith & Wedge geared double engine is used, with 7 by 10 inch cylinders, and 3-foot drum fitted with brake and other necessary appliances.

HAILEY SHAFT.

This shaft was sunk in 1900. It is 315 feet deep. The coal is 4½ feet thick, with a dip of 8 inches to the yard in a northeast direction. Hoisting shaft, 5½ by 7 feet, 315 feet deep, and is ventilated by third compartment. An 80-horsepower Litchfield double engine, with cylinders 18 by 32 inches, is used, and is furnished with steam by means of an 80-horsepower boiler. Ventilation is had by means of fan, and the slope furnishes means of escape. This shaft will produce 250 tons daily.

16. THE SAMPLES COAL AND MINING COMPANY.

This property, located at McAlester, Ind. T., consists of a slope opened in the year 1897. The coal has an average thickness of about 4 feet and dips 10 degrees to the south. The slope is sunk 1,000 feet, with 6 entries and 50 rooms now in operation. The average number of men employed is 70. Ventilation is had by means of a 12-foot Alton fan. A J. A. Mundy 80-horsepower double-friction engine, with 10 by 16 inch cylinders, with a 48-inch drum and all necessary appliances, is used for hoisting, and the engine is furnished with steam by two 12-foot tubular boilers. The requirements of the law are complied with.

Following is the scale of wages:

Weightmen.....	per day..	\$2.00	Dumpers.....	per day..	\$1.75
Top hands.....	do....	1.50	Pit boss.....	do....	2.50
Hoisting engineers.....	do....	2.50	Firemen.....	per month..	30.00
Track layers.....	do....	2.25	Blacksmiths.....	per day..	2.50
Drivers.....	do....	2.25	Helpers.....	do....	2.00
Cagers.....	do....	2.25	Oilers.....	do....	1.00
Mine-run coal.....	per ton..	.65	Entry work.....	per yard..	2.00
Narrow work.....	per yard..	1.60	Room turning.....	each....	5.00

DEDUCTIONS.

Smithing.....	per month..	\$0.50	Doctor.....	per month..	\$1.00
House rent.....	do....	4.00	Territory permits.....	do....	.25
Powder.....	per keg..	2.00	Hospital.....	do....	.25

The following letter in regard to The Samples Coal and Mining Company is self-explanatory:

THE SAMPLES COAL AND MINING COMPANY,
McAlester, Ind. T., July 25, 1901.

DEAR SIR: Replying to yours of recent date, beg to report as follows:

Average number of diggers daily.....	38
Average total wages daily.....	\$3.25
Average number kegs to diggers daily.....	4
Number of days in operation.....	253 1/2
Total number tons per month hoisted.....	3,253.2
Output year ending June 30, 1901.....	39,026 tons.
Average number day men.....	21
Average wages day men.....	\$2.00 per day..
Average number days worked.....	253 1/2

Should you desire any further information will be pleased to give it.

Yours, truly,

THE SAMPLES C. & M. Co.
THICKSTUN.

Hon. L. W. BRYAN,
United States Mine Inspector South McAlester, Ind. T.

17. OZARK COAL AND RAILWAY COMPANY.

The officials of this company are B. F. Hobart, St. Louis, president; C. W. Dawley, Dallas, Tex., treasurer; S. Guerrier, South McAlester, Ind. T., secretary; R. R. Evans, superintendent. The offices are at Panama, Ind. T.

This company operates a slope mine which has been sunk 1,000 feet and was opened in 1898. The average thickness of the coal is 3 feet 8 inches, with a dip of 8 degrees to the south and southeast. There are 8 entries, of which 42 rooms are in operation. The air shaft is 60 feet deep and is 4 by 6 feet. An average of about 65 men are employed in this mine.

Mine is equipped with a pair of 12 by 14 inch Ottumwa double-link engines for hoisting, made by Ottumwa Iron Works, Ottumwa, Iowa. They have a 5-foot drum and all necessary appliances. Steam is furnished by two 50-horsepower boilers. The mine is ventilated by air shaft above described.

This company has constructed a railroad from Panama station, on the Kansas City Southern Railway, about 1 mile in length, which gives it excellent shipping facilities with that railroad.

Following is the scale of wages paid by the company:

Weighmen.....per month..	\$60.00	Top hands.....per day..	\$1.50
Pit boss.....do.....	85.00	Hoisting engineers.....per month..	60.00
Firemen.....do.....	45.00	Track layers.....per day..	2.25
Blacksmiths.....do.....	45.00	Drivers.....do.....	2.25
Stable boss.....do.....	10.00	Couplers.....do.....	2.25
Mine-run coal.....per ton..	.60	Entry work.....per yard..	2.00
Narrow work.....per yard..	1.60	Room turning.....each..	4.00
Teamster.....per month..	30.00		

DEDUCTIONS.

Smithing.....per month..	\$0.75	Doctor.....per month..	\$1.00
House rent.....do..	\$4.00 to 6.00	Territory permits.....do...	.25
Powder.....per keg..	2.00		

18. D. EDWARDS & SON.

The property now being operated by the above company consists of three slope mines, situated at McAlester and Kiowa, Ind. T.

Following is given a letter, with statements attached, in reference to the above mines, and which are self-explanatory:

D. EDWARDS & SON,
McAlester, Ind. T., July 24, 1901.

DEAR SIR: AS requested in yours of July 16, I herewith send you a statement of the output and average number of men employed by D. Edwards & Son at McAlester and Kiowa, Ind. T., mines for the twelve months ending June 30, 1901.

Yours, truly,

D. EDWARDS.

Mr. L. W. BRYAN,
South McAlester, Ind. T.

Statement of Kiowa Mines Nos. 1 and 2 and McAlester No. 3 from July 1, 1900, to June 30, 1901.

Month.	Mines.	
	Nos. 1 and 2.	No. 3.
1900.		
July.....	<i>Tons.</i> 328	<i>Tons.</i> 776
August.....	433	835
September.....	227	1,174
October.....	244	1,489
November.....	528	1,704
December.....	538	1,669
1901.		
January.....	509	2,166
February.....	368	1,835
March.....	438	1,961
April.....	406	2,600
May.....	434	2,534
June.....	413	2,841
Total.....	4,868	21,584

Grand total, 26,452 tons.

Average number of employees at Mines Nos. 1 and 2..... 10
 Average number of employees at Mine No. 3..... 30

The equipment for hoisting purposes at Mine No. 3 consists of a 25-horsepower horizontal single engine, with 7 by 12 inch cylinders and 44 by 60-inch drum. No. 3 mine was opened in 1894, and the coal averages 4 feet in thickness and has a dip of 15 degrees in a south-easterly direction. Ventilation is supplied throughout, and the air shaft is 14 feet deep and is 4 by 4 feet.

Following is the scale of wages paid in this company's workings:

Weightmen..... per month..	\$50.00	Dumpers..... per day..	\$2.00
Carpenter..... per day..	2.25	Top hands..... do.....	1.50
Pit boss..... per month..	70.00	Slope engineer..... do.....	2.00
Truck layers..... per day..	2.25	Blacksmiths..... do.....	2.00
Drivers..... do.....	2.25	Screened coal..... per ton..	.85
Mine-run coal..... per ton..	.65	Entry work..... per yard..	1.65
Narrow work..... per yard..	1.65	Room turning..... each..	5.00

DEDUCTIONS.

Smithing..... per month..	\$0.50	Doctor..... per month..	\$1.00
House rent..... do.....	4.00	Territory permits..... do.....	.25
Powder..... per keg..	2.00		

19. CHOCTAW COAL AND MINING COMPANY.

The above company carries on extensive operations at Sutter, Ind. T., and is composed of the following gentlemen: D. H. Hays, president; Charles Sutter, vice-president; W. C. Fordyce, secretary and treasurer, and W. A. Butterfield, assistant secretary. Their mine was opened in 1899, and they have now in operation 6 entries and 55 rooms. The coal mined has an average thickness of 4 feet 6 inches, with a 3½-inch dip to the south and west. The slope has been sunk 1,050 feet. Ventilation is excellent, there being an air shaft 34 feet deep and 6 feet square. The average number of men employed during the past year was 91, and the total output 24,936 tons. Equipment for hoisting consists of a Griffith & Wedge 120-horsepower double engine, with 12 by 18 inch cylinders and 5½ by 7 foot drum.

This company made report to the inspector for the year just past in the following letter, which is self-explanatory:

CHOCTAW COAL AND MINING COMPANY,
Sutter, Ind. T., July 24, 1901.

DEAR SIR: In compliance with your request of the 16th instant we take pleasure in handing you herewith data in relation to the mine of this company known as Mine No. 1.

As you are no doubt aware, little or no work was done in our Mine No. 2 prior to July 1, 1901, saving in the way of equipment—viz, tippie building, putting in necessary machinery, and erecting buildings—consequently no report is made concerning it.

Our Mine No. 1 was closed down from July 1 to October 1, 1900, which will account for the absence of data during that period.

Month.	Coal mined.	Number of men employed.	Number of days worked.	Powder used.
1900.				
October.....	Tons. 1,193	59	14	Kegs. 59
November.....	2,515	80	24	112
December.....	3,308	90	23	123
1901.				
January.....	3,463	93	25	144
February.....	3,022	94	23	130
March.....	1,881	95	17	101
April.....	3,519	100	24	167
May.....	3,758	101	27	200
June.....	2,277	104	15	137
Total.....	24,936	816	192	1,173

Trusting that the above information will meet your desires, we remain,

CHOCTAW COAL AND MINING COMPANY,
By D. H. HAYS, *President*.

Mr. L. W. BRYAN,
United States Mine Inspector, South McAlester, Ind. T.

Scale of wages.

Weighmen.....per month.....	\$30.00	Timber boss.....per day.....	\$2.25
Dumpers.....per day.....	1.50	Track layers.....do.....	2.12½
Top hands.....do.....	1.50	Drivers.....do.....	2.12½
Hoisting engineers.....per month.....	60.00	Hand-picked lump.....per ton.....	.90
Firemen.....do.....	45.00	Mine run.....do.....	.60
Blacksmiths.....do.....	60.00	Entry work.....per yard.....	2.00
Helper.....per day.....	1.50	Narrow work.....do.....	1.60
Carpenter.....do.....	2.25	Room turning.....each.....	5.00
Pit boss.....per month.....	80.00		





VIEW OF DRIFT MINE AT TURKEY CREEK, INDIAN TERRITORY.

DEDUCTIONS.

Smithing.....	per day..	\$0.03	Doctor.....	per month..	\$1.00
House rent.....	per month..	5.00	Territory permits.....	do.....	.25
Powder.....	per keg..	2.00			

20. R. SARLLS.

This party is operating several small slopes on the celebrated McAlester vein of coal, but confines his operations to horse and hand power. His operations are near Savanna, Ind. T., and the output is shipped over the Missouri, Kansas and Texas Railroad. During the past year 16,667 tons of coal have been mined from these slopes, and an average number of about 100 men were given steady employment. About 500 kegs of powder were used. Improvements are contemplated, and wages paid vary little from those of other companies operating mines in this section.

21. THE TURKEY CREEK COAL COMPANY.

This company is under the management of C. W. Turner, president; J. E. Evans, vice-president; T. W. Clelland, manager, and Jos. Hughes, superintendent. The general offices are at Hughes, Ind. T. One mine is operated, and was opened in 1900. The coal is 2 feet 10 inches thick, with a 20 degrees dip to the north. The slope has been sunk 350 feet, and 3 entries and 8 rooms are now in operation. An air shaft 20 feet deep, 8 by 10 feet, supplies ample ventilation. Twenty-five men are employed, and the total output for the past year was 9,400.55 tons. There were 360 kegs of powder issued and used. Equipment for hoisting consists of one Ketcham 12-horsepower single engine, with 7 by 14-inch cylinders and 3½-foot drum. The output of this company is shipped over a short spur which is built from the company's works, and conveys the coal to the main line of the Choctaw, Oklahoma and Gulf Railroad. The company has good facilities and expects to greatly increase their output.

Scale of wages.

Top hands.....	per day..	\$1.50	Laborer.....	per day..	\$1.50
Slope engineer.....	do.....	1.75	Pit boss.....	per month..	80.00
Blacksmiths.....	per month..	75.00	Track layers.....	per day..	2.25
Helper.....	per day..	2.00	Drivers.....	do.....	2.10
Team and man.....	do.....	2.50	Cagers.....	do.....	2.10
Stable boss.....	per month..	35.00	Entry work.....	per yard..	2.50
Teamster.....	do.....	35.00	Narrow work.....	do.....	1.60
Carpenter.....	per day..	2.75	Room turning.....	each..	5.00

DEDUCTIONS.

Powder.....	per keg..	\$2.25
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22. WILLIAM BUSBY, BAKER MINES.

This property was commenced in 1900, and consists of a slope which has been sunk 550 feet. There are two entries in operation. The coal has an average thickness of 4 feet, with a dip of 15 or 20 inches to the yard in a southwest direction. Air shaft is 30 feet deep and 6 by 6 feet, and the total output for the past year was 9,119 tons. Equipment for hoisting consists of a Riverside Iron Works friction double engine, with 10 by 12 inch cylinders and 4½ by 4 foot drum. There is also a shaker screen engine and a fan engine used.

Scale of wages.

Weldmen	per day..	\$2.00	Track layers	per day..	\$2.25
Top hands	do....	1.50	Drivers.....	do....	2.25
Slope engineer.....	do....	2.00	Couplers.....	do....	1.50
Firemen	do....	2.00	Mine-run coal.....	per ton..	.60
Tamper.....	do....	1.50	Entry work	per yard..	1.60
Carpenter.....	do....	2.00	Narrow work	do....	1.60
Laborer.....	do....	1.50	Room turning	each..	5.00

DEDUCTIONS.

Smelting	per month..		Doctor.....	per month..	\$1.00
House rent.....	do....	\$2.00	Territory permits.....	do....	.25
Powder.....	per keg..	2.00			

23. ST. LOUIS-GALVESTON COAL AND MINING COMPANY.

The above company has its main office in the Holland Building, St. Louis, Mo. The officers are B. E. Black, secretary, and Mr. Adams, manager. Mine offices are at Atoka, Ind. T. The company operates on a branch of the Missouri, Kansas and Texas Railway which connects with the Coalgate branch of the same railway, the first-named branch leaving the Coalgate branch or line between Atoka and Lehigh and running about 3 miles west. A slope has been sunk several hundred feet, and the average thickness of the coal is about 4 feet, with a dip of 3 inches to the yard in a northwest direction. An air shaft 5 feet square supplies necessary ventilation. Nineteen men are employed.

The following letter gives in detail the present condition of the operations of this company:

ST. LOUIS-GALVESTON COAL AND MINING COMPANY,
St. Louis, Mo., July 29, 1901.

DEAR SIR: Complying with your letter of July 16, we send you herewith a statement of tons of coal mined at our mine near Atoka, Ind. T., for the twelve months ending June 30, 1901, together with the number of men employed and the average number of days worked; also an approximate number of kegs of powder used.

Yours, very truly,

ST. LOUIS-GALVESTON COAL AND MINING CO.,
B. E. BLACK, *Secretary.*

L. W. BRYAN, Esq.,
United States Mine Inspector, South McAlester, Ind. T.

Output of coal from the St. Louis-Galveston Coal and Mining Company mine near Atoka, Ind. T., for the year ending June 30, 1901.

Number of tons mined.....	8,550
Number of men employed.....	19
Average number of days worked.....	180
Approximate number of kegs of powder used.....	400

Scale of wages.—Those at other mines in this section prevail.

24. M. PERONA.

M. Perona has been operating a small slope at Savanna for the past four years. The slope is sunk 175 feet. The coal is 3 feet 8 inches in thickness, with a dip of 20 inches per yard to the northwest. An air shaft 20 feet deep and 5 by 6 feet supplies ventilation. Hoisting is done by horsepower, one gin of self-make, 5½ feet in diameter, being

used. Ten men are employed, and the total output for the past year was 3,307 tons. Average number of days worked was 148, and 151 kegs of powder were issued and consumed.

Scale of wages.

Hoisting engineer	per ton..	\$0.10	Mine-run coal	per ton..	\$0.60
Team and man	per day..	2.50	Entry work	per yard..	2.00
Teamster	per ton..	.25	Narrow work	do....	1.60
Laborer	per day..	2.25	Room turning	each..	3.00
Drivers and pushers	do....	2.25			

DEDUCTIONS.

House rent	per month..	\$3.00	Territory permits.....	per month..	\$0.22
Powder	per keg..	2.00			

25. CASTON COAL COMPANY.

The production and operation of this company are very small. They are located at a place called Victor, Ind. T., and the company is under the management of T. J. Phillips. He reports that the company has not done much during the past year, but that their total output for the year was 3,224 tons. About 40 kegs of powder per month was consumed for the 12 months, and from 10 to 15 men were employed, who worked from 4 to 5 days to the week.

26. McALESTER AND GALVESTON COAL MINING COMPANY.

This company operates a slope mine, opened in 1901, at McAlester, Ind. T. The coal is 2 feet 7 inches thick, with a dip of 27 degrees to the southeast. The slope has been sunk 275 feet, and there are 3 entries and 8 rooms in present operation. Ventilation is supplied by an air shaft 29 feet deep, 5 by 6 feet. Equipment consists of one Allison & Son 18-horsepower engine, double, with cylinders 7 by 9, and 26 by 28 inch drum.

The following letter is a report received from these people:

McALESTER AND GALVESTON COAL MINING COMPANY,
McAlester, Ind. T., July 18, 1901.

SIR: I have the pleasure to submit a statement per your request of the 18th. The company is named as headed above. Nicolas Bohn, president; C. W. Turner, vice-president; M. S. Ugly, secretary and treasurer. Mines are located in North McAlester, on Missouri, Kansas and Texas track, on "bottom vein" of this field (McAlester), one slope 300 feet deep, entry east 250 feet, entry west 300 feet. We have found in our development so far a pretty difficult proposition, and expensive on account of faults in the vein and the pinching of the coal strata. The average of the pit up to date is 2 feet 7 inches at the outside.

Our coal in the east shows up favorably at this date, and has increased to 3 feet 3 inches of clear coal. On the west we have some 50 feet farther to go before we expect a change for the better, as the fractures are on a large scale yet with a hard sandstone top and from 4 to 5 feet of bony bottom, with small strata of coal from 1/4 to 2 inches thick.

We have made a very careful prospect from McEverests in to Missouri, Kansas and Texas track, and find the vein 4 feet 4 inches and very regular until we come 400 feet west of our slope; then the trouble and faults begin.

On the east we will prospect from below, as it is reasonably evident that the north and south dips are connected and buried pretty deep.

As development proves what we have, the company intends to open up on a large and extensive scale.

Statement of active operations, commenced in March.

Average number of men employed since then—	
Inside.....	14
Outside.....	2
Engineer.....	1
	17
Number of days worked monthly.....	26
Tons of coal mined for—	
Market.....	2,600
Boiler use.....	100
Kegs of powder used.....	225
Eight boxes of dynamite (used in brushing).....pounds..	400
Boiler, 15 horsepower.	
Engine, double, 8 by 9 friction drum, 15 horsepower.	

Ventilation as yet by two furnaces. We are preparing to put in our fans at earliest opportunity.

I am proud to say there were no accidents.

Gas generates very rapidly.

Daily output at this date, approximately, 65 tons.

Very respectfully,

NIC. BOHN, *President and Manager.*
JOHN FAHEY, *Foreman.*

L. W. BRYAN,
United States Mine Inspector, South McAlester, Ind. T.

Scale of wages.

Weighmen.....per month..	\$60.00	Dumpers.....per day..	\$1.50
Slope engineer.....per day..	1.75	Pit boss.....per month..	65.00
Mine-run coal.....per ton..	.65	Narrow work.....per yard..	1.65
Room turning.....each..	5.00		

DEDUCTIONS.

Smithing.....per month..	\$1.50	Doctor.....per month..	\$1.00
House rent.....per room per month..	2.00	Territory permits.....do...	.25
Powder.....per keg..	2.00		

27. H. NEWTON McEVERS.

This is an approved lease now operated by the above party. It consists of two mines, one of which was but recently opened. They are located at McAlester, Ind. T. Slope mine No. 1, opened in 1899, has been sunk 300 feet and has 2 entries now in operation. The coal is 4½ feet thick and dips 48° to the south. Air shaft is 35 feet deep by 6 feet square. This slope is equipped with an Ellis & Son (St. Louis, Mo.) 100-horsepower double engine, with cylinders 20 by 16 and drum 18 by 7.

SLOPE MINE NO. 2.

Opened in 1901. This slope has been sunk 300 feet, and the coal here mined has an average thickness of 4½ feet and dips 48° to the south. Air shaft 35 by 6 feet square. Equipment consists of an H. L. Scoville (Chicago, Ill.) 20-horsepower single engine, with cylinder 8 by 14 and drum 8 by 4. Friction gear.

The following letter gives the output per month:

McALESTER, IND. T., *July 23, 1901.*

SIR: In reply to your letter of the 16th instant, I would respectfully state that during the twelve months beginning with July, 1900, and ending with June 30, 1901, coal was mined by H. Newton McEvers on his approved lease No. 1 as follows:

1900.	Tons.	1901.	Tons.
July.....	18	January.....	194
August.....	22	February.....	250
September.....	134	March.....	196
October.....	124	April.....	278
November.....	104	May.....	320
December.....	148	June.....	329
		Total.....	2,117

The above statement may be divided according to the output of each mine as follows:

Slope No. 1	tons..	1,758
Slope No. 2	do.....	359
Total	do.....	2,117
Total number of men employed during above period		60
Total number of days worked during above period		260

Proper machinery is now on the ground, and as soon as it is put in position I will be ready to begin extensive operations at once.

Respectfully,

H. NEWTON McEVERS.

L. W. BRYAN,

United States Mine Inspector, South McAlester, Ind. T.

Scale of wages.

Weighmen	per month..	\$45.00	Laborer	per day..	\$1.50
Dumpers	do.....	45.00	Pit boss	per month..	75.00
Top hands	do.....	45.00	Tracklayers	per day..	2.75
Hoisting engineers	do.....	60.00	Cagers	do.....	2.00
Blacksmiths	do.....	60.00	Screened coal (shift)	per ton..	2.25
Team and man	per day..	2.25	Loaders (shift)	do.....	1.75
Carpenter	do.....	2.50			

No deductions, all work thus far being company work.

28. FOLSOM & MORRIS COAL MINING COMPANY.

This company operates one mine at Midway, Ind. T. It was opened in 1901, and the coal has an average thickness of 3 feet 4 inches, with a dip of 2½ inches to the yard in an east direction. The shaft has been sunk 122 feet and the slope 60 feet. There are 4 entries and 6 rooms now in operation. Shaft is 10 by 7 and third compartment 4 by 7. Ventilation is supplied through an air shaft, which is built to the side of the hoisting shaft. The average number of men employed is 26. Equipment consists of one Litchfield Foundry Machine Company engine, direct acting, with link reversing motion, double, with 16 by 30 cylinders and 6 by 7½ foot drum.

This is a new mine and the bottom partings have just been made. South parting is 125 feet. Slope just started 80 feet from pit bottom. North parting 125 feet. Plane will be started 115 feet from pit bottom. All work has been done as company work, and 35 kegs of powder have been used. The total number in tons of coal produced was 700. The Litchfield engine used is fitted with Beach's safety relief valve and brake and all necessary appliances. Two tubular boilers, 60 inches in diameter, 22 feet long, furnish steam. When this property is properly opened up, which it promises to be, it will be one of the large producing mines in the Territory.

Scale of wages.

Weighmen	per month..	\$60.00	Timber boss	per month..	\$75.00
Top hands	per day..	1.50	Tracklayers	per day..	2.25
Hoisting engineer	per month..	75.00	Cagers	do.....	2.25
Blacksmiths	do.....	60.00	Gobbers	do.....	2.124
Helper	per day..	1.75	Mine run coal	per ton..	.60
Carpenter	do.....	2.50	Entry work	per yard..	2.00
Laborer	do.....	1.50	Narrow work	do.....	1.60
Pit boss	per month..	85.00	Room turning	each..	5.00

DEDUCTIONS.

Smithing	per month..	\$0.50	Doctor	per month..	\$1.00
House rent	per month..	4.00 to 7.00	Territory permits	do.....	.25
Powder	per keg..	1.75			

29. CRESCENT COAL COMPANY.

This company operated a slope mine which was located near Cavanal Station, on the St. Louis and San Francisco Railroad. The company is not now in operation, its assets having passed into the hands of a United States receiver, and no operations are being conducted at this time.

REDMOND & BUSH.

This mine is situated about 3 miles west of old McAlester and the opening has been made on the McAlester vein of coal. A slope has been driven down 60 feet, with an air course driven to the west and connected with an air shaft (furnace power will be used). The coal is 4 feet thick and of excellent quality, pitching in a southwestern direction at an angle of 60°, where the coal was struck, but the last 10 feet has leveled out somewhat, this angle now being a little over 50°.

Coal is hoisted by horsepower, and altogether might be properly termed a very crude attempt at opening a mine and would almost take one back to the antediluvian times.

The coal taken from this mine has been mostly shipped over the Choctaw, Oklahoma and Gulf Railroad.

VALLEY COAL MINING COMPANY.

This company has opened two slopes on the lower or Hartshorne veins. The first slope was driven down about 70 feet on the upper vein and abandoned on account of thinness of the coal. It only measured about 2 feet. They moved back about 70 feet on the surface and started a second slope on the lower vein and have driven down 140 feet. The coal measures 4 feet and pitches 42½ degrees south, and is of very fair quality.

This slope is fitted up with an upright boiler and a steam engine about 16 horsepower, made by H. H. Scoville, Chicago, Ill. The slope is for a single road, with air courses on both sides, one air shaft on west side air course. An overcast will be made over the slope to ventilate the east side entries by furnace.

The principal part of production has been sold for home consumption, the balance shipped over the Missouri, Kansas and Texas Railroad.

This company expects to have the slope driven down, entries turned off, and rooms working ready for the fall trade. They also expect to have a spur track run in from the Missouri, Kansas and Texas Railroad, so they can load coal direct into railroad cars.

ARCHIBALD SPRINGER COAL COMPANY.

This is a slope mine and has been driven down in the lower vein a distance of 230 feet. Coal is 4 feet thick, pitching 22 degrees south. Entries have just been turned off each side of the slope. An air shaft 50 feet in depth has been completed and connected with air course on west side. East entries will be ventilated by overcast on slope, which will connect with west air course (by furnace power). One 60-

horsepower flue boiler has been put in place, and a steam engine (or mendy hoist) 9 by 16 inches will be in position in a few days. A steam pump has been put in and will be in operation in a few days. What coal has been taken out was hauled by wagon and loaded on the Choctaw, Oklahoma and Gulf Railroad cars placed on the spur track running to the "Busby" mine, situated about one-half mile from the above opening.

This company expects to have this mine in full operation for the fall trade; also they have the promise of a spur track to their mine, so that they will be able to load coal into the railroad cars in place of hauling by wagon.

Following is a resume of the accidents for the past year, showing mine number, company or operator, and cause of accident:

Mine.	Operator.	Fall of roof.	Gas.	Shot firing.	Fall of coal.	Pit car.	Electric.	Cage.	Engine.	Rope.	Fell down shaft.	Total.	Total.
No. 5.....	McAlester.....	4	9	18		3		5				39	76
Slope 7.....	do.....	3	1			1						5	
No. 1.....	do.....	5	2	3	1	5		1				17	
No. 3.....	do.....	3				2		1				6	
Slope 1.....	do.....	1		1		1				1		4	
Slope 15.....	do.....	1	1									2	
Slope 3.....	do.....	2										2	
Slope 11.....	do.....	1										1	
No. 5.....	Osage.....	4	1	3								8	
No. 11.....	do.....		3			3						6	
No. 8.....	do.....	1										1	
No. 6.....	Atoka.....			1	1	1	1					4	15
No. 5.....	do.....	1										1	
No. 6.....	do.....			1								1	
No. 7.....	do.....							1			1	2	
Slope 1.....	Wilburton.....		2	1								3	8
Slope 2.....	do.....				1	1						2	
Slope 3.....	do.....	2										2	
Slope 6.....	do.....	1										1	
Slope 8.....	Devlin.....		1	5								6	6
Slope 76.....	Kansas and Texas.....	1	1									2	
Slope 77.....	do.....	1										1	
Slope 78.....	do.....	1		1								2	
Slope 3.....	Ola.....		4									4	8
Slope 1.....	Samples.....		3									3	
Slope 1.....	Ozark.....		3									3	
Slope 2.....	Southwestern Coal and Improvement.....							1	1			2	3
Slope 4.....	do.....	1										1	
Slope 1.....	Perry.....					3						3	8
Slope 1.....	Halley.....	1									1	2	
Slope 9.....	Milby & Dow.....	1	1									2	
Slope 2.....	Edwards.....	1										1	
Total.....		36	32	34	3	20	1	9	1	1	2	139	139

Accidents which proved fatal.

Mine.	Operator.	Fall of roof.	Gas.	Shot firing.	Fall of coal.	Pit car.	Electric.	Cage.	Engine.	Fell down shaft.	Total.	Total.
No. 5.....	McAlester.....		1	6		1					8	15
Slope 7.....	do.....	1									1	
No. 1.....	do.....		1	3							4	
No. 3.....	do.....					1					1	
Slope 1.....	do.....	1									1	
No. 5.....	Osage.....	2	1	3							6	6
No. 6.....	Atoka.....			1			1				2	4
No. 61.....	do.....			1							1	
No. 7.....	do.....								1		1	
Slope 1.....	Wilburton.....			1							1	2
Slope 3.....	do.....	1									1	
Slope 3.....	Devlin.....			4							4	4
Slope 76.....	Kansas and Texas.....	1									1	3
Slope 77.....	do.....	1									1	
Slope 78.....	do.....	1									1	
Slope 1.....	Samples.....		2								2	2
Slope 1.....	Ozark.....		2								2	2
Slope 2.....	Southwestern Coal and Improvement.	1									1	1
Slope 1.....	Perry.....					1					1	1
Slope 1.....	Halley.....	1							1		2	2
Slope 9.....	Milby & Dow.....	1									1	1
Slope 2.....	Edwards.....	1									1	1
Total.....		12	7	19		3	1			2	44	44

DETAILS OF ACCIDENTS.

July 2, 1900. John Ayers; age 34; American; loader; married.

This accident occurred in Mine No. 6 at Lehigh, Ind. T., operated by the Atoka Coal and Mining Company, and in room No. 61 off the second south bottom entry. It was the duty of this man to load coal mined by the electric machines, and it was also part of his duty to clear away the dirt and slack caused by the machine mining, throwing the dirt back into the gob. This work was done after the mining, but before shooting down the coal. In this Lehigh field the coal is hard and brittle, and it is not an infrequent occurrence that the standing coal, while apparently undisturbed, has been fractured by previous shots. In this instance it appears that the coal was in this condition, and had perhaps been further jarred loose by the machine mining, and was only supported by the dirt. As soon as Ayers removed the support a large block of coal fell from the face and struck him, breaking his right leg. This was either an unforeseen and unpreventable accident, or else, if the danger was apparent, Ayers neglected to take the necessary precautions for his own safety.

July 7, 1900. John Thorpe; age 27; American; driver; married.

This man was also injured in Mine No. 6 at Lehigh, Ind. T., operated by the Atoka Coal and Mining Company, but in room No. 97 off the first south entry, and accident happened at about 11 o'clock a. m. He also suffered a fracture of both bones of the right leg. It is the practice in this mine for the miner and the driver to take the loaded car from the miner's room to the entry, and in an "uphill" room the driver usually gets in front of the car and the miner behind, and it being an incline from the face of the room to the entry, the miner at

the rear "sprags" the car. In this case, while the loaded car was going down the incline the sprag broke. The miner called to the driver warning him to get out of the way of the run away car. The driver, Thorpe, attempted to do so, but did not act quickly enough and was caught by the loaded car and injured as described.

July 13, 1900. Toby Sorels; age, 23; American; driver; married.

This accident occurred in Mine No. 1, at Hartshorne, Ind. T., operated by the Kali-Inla Coal Company, and in the second north entry of this mine, at about 9 o'clock a. m. The injury to this man was caused by one of the loaded cars comprising a trip leaving the track and somewhat severely crushing the driver's foot.

July 18, 1900. F. R. Cates; American; colored; miner; single.

This accident occurred in Mine No. 6, at Lehigh, Ind. T., of the Atoka Coal and Mining Company, and in room No. 93, off the straight north back entry, at about noon. This man was found in his room with a fractured skull. He had been struck by the coal blown out by a shot, and his body was partially covered with fragments of coal when found lying near one of the shots which had been fired in his room. Two shots had been fired, about 16 feet apart, and both shots were "on the solid." It is very evident that this man bit the squib for one of the shots off too short and was unable to get away after lighting the shot before the explosion, or one of the shots hung fire and the injured man came back to ascertain the difficulty and was caught by the flying coal from the shot going off in his face. The position of his body when found would indicate that he had returned to the shot, it being very close to the face of the room. This man was very severely injured, but through prompt medical attention he recovered. By whichever method this man was caught by his shot, his injury was the result of his own mistake.

July 19, 1900. John Koricko; age, 40; Russian; miner; married.

This man was injured in Mine No. 1, at Hartshorne, Ind. T., of the Kali-Inla Coal Company, and in room No. 48, off the seventh south entry, at about 10 o'clock a. m. Koricko was engaged in taking down a piece of loose slate from the roof of his room, and while doing this the loose slate fell upon him, mashing his foot and slightly injuring his head and back.

July 23, 1900. Arthur Hall; age, 23; American; driver; single.

This accident occurred in Mine No. 5, at Lehigh, Ind. T., of the Atoka Coal and Mining Company, and in the straight north entry of this mine, at about 3 o'clock p. m. This man was riding on the trip of loaded cars which he was bringing from Mine No. 5 $\frac{1}{2}$ to the bottom of Mine No. 5, when the cars ran off the track. He immediately jumped off, but the cars ran in the same direction in which he jumped, and crushed him between the cars and the rib or side of the entry.

July 26, 1900. H. L. Wear; age, 45; American; miner; married.

This accident also occurred in Mine No. 5, at Lehigh, Ind. T., of the Atoka Coal and Mining Company, and in the fifth south lower entry, at about 9.30 a. m. He was caught by a fall from the roof, resulting in severe wounds on his head and face, with a fracture of the fourth rib on his right side. This man was a miner working in an entry, or "entry man." At the point where he was at work there was a loose piece of rock in the roof. He was aware of this loose piece of rock

himself, and was also warned of its existence by others near him and told of the danger of working under it. It seems that he thought it was a piece of "scaly bony" and not dangerous; but, after being warned of its danger, he promised to secure it by propping, or to take it down or notify the timber man to attend to it, but he neglected to take either of these precautions. It is the duty of an entry man to look out for his own roof, and when a dangerous piece of roof is found he must either take down the loose rock or temporarily secure it by propping, or, if it is too extensive, to notify the mine boss or timber man in order that it may be permanently secured. Wear's injury was the result of his negligence in failing to take the usual precautions obviously necessary for his own safety.

July 26, 1900. G. L. Payne; American; miner. Frank Popkiss; age, 30; Polish; miner; single. Charles Bly; age, 28; German; miner; single.

The accident in which these three men were injured occurred in Mine No. 5, at Alderson, Ind. T., operated by the McAlester Coal Company, and in the main east entry of said mine, about 7 o'clock p. m. Popkiss had his right arm, left hand, and face severely burned and was also slightly burned on his back. Charles Bly had both hands and his back severely burned and was slightly burned on the legs. Payne was burned on his face and neck and right ankle, not so severely. There had been a fire in the main east entry of this mine, and an air-tight dam was built across the entry in order to smother and extinguish the fire. After the fire was supposed to be extinguished this dam or stopping was taken down. It was then found that the fire had caused the roof to fall in a great many places, and the three men above named were sent in to load this fallen rock in cars and send it out. In the afternoon, before these men went to work here, the mine boss had gone into this place and made a careful examination for gas with a safety lamp, and just before the men went to work the mine foreman went into this entry to the place where the men were to work, and, finding no gas with the safety lamp, he safely lit a naked lamp, showing conclusively that the place was free from gas. In the evening, when the night shift went to work, the fire boss or gas man went to the place before the men, and found the place generally clear from gas, except that on reaching the face of the entry and stepping up on a large pile of fallen slate, he discovered gas with his safety lamp at the top of the entry in the cavity which the fall had made. The men had been working about half an hour cleaning up slate, when a small body of gas in this entry was ignited, and the men were burned as above described. It seems to be a safe supposition, though denied by the men, that one of them must have stepped upon one of the piles of rock and ignited the gas in the cavity overhead with his naked lamp. However, there is a slight chance that the gas may have been ignited by the rekindling of the fire at the face.

July 31, 1900. Nick De Martin; age, 42; Italian; miner; married.

This man was injured in Mine No. 7, at Alderson, Ind. T., operated by the Kali-Inla Coal Company, and in the sixth west entry, about 11 o'clock p. m. This man was struck by a heavy fall from the roof and so severely injured that he died on the day following the injury. This man was brushing the roof of the entry; he had fired a brushing shot and loaded out four cars of rock. A portion of the roof had opened,

but was not known to De Martin to have been shot loose; he sounded it, and thought it was still so solid that it would stay up, at least for a time. Acting upon this exercise of judgment he went to work immediately under it and very soon it fell, resulting in his fatal injury and death.

August 8, 1900. Hugh Reed; age, 24; American; miner; single.

This accident occurred in Mine No. 1, at Hartshorne, Ind. T., operated by the McAlester Coal Company, at about 10 o'clock a. m. Reed was mining off a shot when a fall from the roof occurred, striking him and causing some bruises on his shoulder, back, and hip, though his injuries were not very severe. It is a miner's duty to look out for the safety of the roof over his working place, and in this instance Reed failed to properly inspect and secure his roof, and was thereby injured.

August 13, 1900. Joe Green; age, 37; Slav; miner.

This man was burned by gas, severely but not dangerously, in Mine No. 1 of the Wilburton Coal and Mining Company, at Wilburton, Ind. T. This man's working place was making gas, and on the day of the accident he was notified by the fire boss not to go into his room. He went in, however, and in attempting to brush out the gas forced it down upon his naked lamp, when it was ignited, burning him as above stated.

August 14, 1900. Morgan Jones; age, 35; Welch; miner; single.

This accident occurred in Slope No. 1 of the Hailey Coal and Mining Company at Haileyville, Ind. T., and at the face of the first east entry, at about 8 o'clock in the morning. Jones was struck by a fall of rock from the roof of the entry and suffered a dislocation of the spine and complete paralysis. He was working at the face of the entry where he had just turned off a room, and when injured was in the act of testing the roof for loose rock. He was in a stooping posture, and was struck directly upon the back and crushed by the fall, which occurred at that moment. This man was an experienced and first-class miner, and the injury was due to one of the unforeseen and unavoidable accidents which occur in the mines.

August 18, 1900. Francisco Castellano; age, 27; Mexican; miner.

This man was injured in Mine No. 50, at Carbon, Ind. T., of the Kansas and Texas Coal Company, and in room 24 off the fifth east entry, at about 8 o'clock a. m. This man was working in his regular working place when a large piece of rock fell from the roof without warning, crushing him to death. A miner looks after the safety of his own roof, and while there is no indication of any carelessness or neglect of duty on the part of this man, neither was his death due to the fault of any other person. It was an unavoidable accident.

August 27, 1900. R. E. Price; age, 36; American; miner; married. Osias Price; age, 15; American; helper; single.

The accident by which these two persons were injured occurred in Mine No. 1 of the Samples Coal and Mining Company, near McAlester, Ind. T., and in room No. 5 off the second west entry, about 7 o'clock a. m. R. E. Price was severely burned by gas, so that he died on September 1. Osias Price, his son, was also severely burned and died on August 29. This man and his boy were working a double room, one about 36 feet in width, the center being tightly filled with gob, a road traveling each side of the gob, and the air passing up one road

and down the other. Previous to the date of this accident there had been no gas making or accumulating in this working place, but on the Saturday preceding the Monday when the accident occurred the mine was idle, and during that day and the Sunday following, when the mine was also, of course, not working, some gas had accumulated in this room. On Monday morning the fire boss discovered gas and dead lined both entrances to the room, but R. E. Price disregarded this danger signal, and going into the room with his naked light ignited the gas and burned both himself and his boy, who had followed him, so that each afterwards died as a result of the burns.

September 6, 1900. John Farmento; age, 27; Italian; miner; single.

This accident occurred at Mine No. 52 of the Kansas and Texas Coal Company at Carbon, Ind. T., and in the sixth west air course of the mine, at about 10 o'clock a. m. Farmento was struck by a fall of slate from the roof and so severely crushed as to result in a complete paralysis of the lower part of his body, and death. This is a type of the serious accidents which occur in the coal mines in this Territory, and which it seems impossible for either the operators or the mine workers to foresee or prevent. And this condition is well illustrated by the full account of this accident, which is here given. Four men were working in the sixth west entry and sixth west air course, Farmento and another in the entry. The pit boss had occasion to complain to Farmento and his coworker that they were not keeping the entry level, and the men thereupon indicated their desire to change their work. The other two men working in the air course learned of this and stated their preference to work in the entry, and thereupon the change was made between the men, without, however, consulting the pit boss or anyone else, and entirely upon their own responsibility. Farmento had worked in this new place, the air course, about two days when the accident occurred. At the time of the accident he was seated upon the upper rail in the entry, and immediately opposite a break-through about 35 feet back from the face, eating a lunch. At some time prior to the accident a brushing shot had been fired in the roof, and had probably left a powder crack, which had loosened or weakened a piece of the roof, but no defect in the roof was visible, nor indeed is it probable that the defect could have been discovered by a careful inspection. The roof at this point of the mine is exceedingly good, and there was no especial reason to suspect any danger at this point. However, it was the duty of Farmento to see that the roof of his working place was safe, and he had no business to sit down to eat his dinner without using at least ordinary care to ascertain whether the roof at that point was safe. It seems entirely probable that no inspection of the roof would have revealed the danger, and there was no way by which the accident could have been avoided.

September 11, 1900. A. W. Brown; age, 43; German; miner; married.

This accident occurred in Mine No. 3 of the Devlin-Wear Coal Company, at Witteville, Ind. T., in room No. 2, off the fifth south entry, at about 3 o'clock p. m. It seems that Brown went into a room other than his own to put out a fuse which was burning in a drill hole in which a gas feeder had been struck. Just as he approached the hole the powder and the gas were ignited, and he was severely burned on the body, arms, and face, and died on October 1. This man's burns

were especially severe on his body, because he was wearing no shirt, which would have furnished him a great deal of protection, and probably so decreased the severity of his burns that his injuries would not have been fatal.

September 13, 1900. James Alls; age, 24; American; miner; married.

This accident occurred in Mine No. 1, at Hartshorne, Ind. T., operated by the McAlester Coal Company, and in the fourteenth south entry, at about 4.15 o'clock p. m. This man was struck by a runaway car and crushed between the car and the rib, resulting in a fractured thigh and severe body bruises.

September 19, 1900. B. Palifico; age, 32; Italian; miner; single.

This man was injured in Mine No. 1 of the Wilburton Coal and Mining Company, at Wilburton, Ind. T., in room No. 1, off the fourth east entry, about 12.30 o'clock p. m. Palifico and two other men were working in the fourth east entry and air course. A room had recently been turned from the air course and driven about 10 feet, in which no one was working at this time. Before firing their shots at noon these men threw their shovels up into this newly started room, so as to be out of the way of injury from the flying coal. After dinner, when they returned to work, Palifico went up into this room for the shovels, and ignited a small body of gas which had accumulated in the room during their absence as a result of a feeder being opened by the force of their shots near by. Neither of the other men were burned, and Palifico's burns were not severe.

September 20, 1900. Robert Leveriman; age, 48; German; loader; married.

This accident occurred in Mine No. 5 of the Osage Coal and Mining Company, at Krebs, Ind. T., and in room No. 7 on "C" entry on the plane, at about 10 o'clock a. m. Leveriman was working as coal loader at the time of this accident, loading coal in a room where another miner was at work. It was the duty of the miner working in this room to keep the roof in a safe condition, and on the morning this accident occurred had securely propped the roof, placing three props near the face. When the accident was discovered Leveriman was found lying close to the face, crushed under a fall from the roof, and one of the props was found removed from its place. All indications point to the fact that Leveriman had taken down one of the props in order to have more room to shovel his coal, and had thus released the support from a bad piece of rock in the roof. His spinal column was dislocated, and he died as a result of this injury on November 11, 1900.

September 21, 1900. Lewis Nesbit; age, 40; American, colored; timberman; married.

This accident occurred in Mine No. 5 of the McAlester Coal Company, at Alderson, Ind. T., and happened at about 4 o'clock p. m. Nesbit was taking some timbers down into the mine, and had unloaded these timbers between the track and the rib, placing them too close to the track. A car coming down the grade struck the timber, which in turn struck Nesbit, breaking his leg between the knee and ankle.

September 25, 1900. Bert Atkinson; American; laborer; single.

This accident also occurred in No. 5 mine of the McAlester Coal Company, at Alderson, and at the shaft bottom, at about 8 o'clock a. m. Atkinson was pushing a car around the side track at the bottom of the shaft, when he struck a car ahead of him with the car he was pushing, causing the first car to topple over into the sump. He kneeled down and was looking over into the sump after this car when the cage came down upon his head, causing a fracture of the lower jaw.

October 9, 1900. Jake Steifel; age, 22; Polander; miner; single.

This accident happened at Mine No. 7 of the McAlester Coal Company, at Alderson, Ind. T., and in room No. 46, off the sixth west entry, at about 2 o'clock p. m. This man was struck by a fall of slate from the roof of his room, breaking his left arm and left leg. He had cleaned up his room and was preparing to put in some shots when the fall occurred at the end of the roadway. The injured man had evidently failed to properly examine and prop his roof, as it was his duty to do for his own safety.

October 10, 1900. Frank Nunneley; age, 29; American; shot firer; single. John Miller; age, 37; shot firer; German; married.

These men were injured in a very serious and violent explosion, which occurred in Mine No. 3 of the Devlin-Wear Coal Company, at Witteville, Ind. T. Frank Nunneley was burned about the face and both arms, but not seriously, while John Miller was so severely burned that he died on October 20. These men were both shot firers, and under the system in vogue at this mine there were no other persons in the mine while these men were performing their duties, and to this rule or system is due the fact that no other lives were lost. And it is remarkable also that Nunneley was able to escape with his life in view of the violent character of the explosion. Both men were in the fourth south entry when the explosion occurred. From the statements of the men and the physical evidences in the mine, it seems clear that the explosion was caused by one or more "windy" or "gunning" shots. One shot which had been placed in the right rib in the left crosscut to the slope was undoubtedly a blown out or windy shot, the tamping having been blown back out the hole; in addition to this, several shots on the right crosscut showed signs of overpowdering, and no doubt also created a great deal of flame, thus adding to the force of the explosion. There were nine shots in all fired in and around this point, and according to the statement of Frank Nunneley, four of them went off after the gunning shot in the right rib.

October 22, 1900. David Stewart; age, 40; Scotchman; pit boss and gas man; married. Sam Wilson; age, 52; American; miner; married. Frank Wilson; age, 14; American; helper; single.

These men were all injured in an explosion of gas which occurred in Mine No. 1 of the Ozark Coal and Railway Company, at Panama, Ind. T., in the second east entry of said mine, at about 6.40 o'clock a. m. David Stewart was severely burned on the hands, arms, and face, and died October 24. Sam Wilson was also burned, especially on the hands and arms, and slightly on the face and body, but not fatally. Frank Wilson, son of Sam Wilson, was severely burned, and afterwards died. David Stewart, while attending to his duties as gas man or fire boss, was in the mine early in the morning before the men examining the working places for gas. He found a small body of gas

in the second east entry, and was engaged in brushing it out to clear the place, using a safety lamp in his work. It is the rule in this mine that no men shall enter until the fire boss completes his examination and makes his report as to the condition of working places. When places are found with a considerable body of gas the same is dead-lined and the men notified not to enter. When the amount of gas found is small, he brushes it out so as to make the working place safe and workable. Wilson and his son entered the mine twenty minutes ahead of the proper hour, before the gas man had come out and made his report. As they approached the point where Stewart was brushing out the gas, the gas was ignited by the naked lamp borne by Wilson, resulting in the death of his son and of the fire boss, and of his own injury.

November 1, 1900. George Withers; age, 27; American; mine foreman; married. Peter Kelly; age, 27; American; track layer; married. A. A. Ireland; age, 20; American; laborer; married.

These three men were all burned by a slight explosion of gas in Mine No. 5 of the McAlester Coal Company, at Alderson, Ind. T., about 1 o'clock p. m. Withers and Ireland were in the slope entry and, under the direction of Mr. Withers, mine foreman, endeavoring to fan out a small body of gas. Finding it to be impracticable to accomplish this, the foreman started to leave the place and instructed Ireland to come out and to bring his lamp, being very careful in handling it so as not to ignite the gas. Ireland picked up his lamp to come out and raised it up too high, thereby touching the gas body and igniting it, with the result that both Withers and Ireland were severely burned about the face, neck, back, arms, and hands. Peter Kelly was attending to his duties of track laying in the main north entry, when the gas ignited by Ireland in the slope entry came down to the point where Kelly was at work and burned him about the face and hands.

November 2, 1900. Lewis M. Savage; age, 31; German American; miner; married.

This accident occurred in Mine No. 3 of the McAlester Coal Company, at Gowen, Ind. T., in room No. 4 on the fifth west entry, about 4.35 p. m. Savage was at work in his room, in which he had securely propped the roof, when a new man, acting as loader, pulled a pit car off the track and thereby struck and knocked down a prop, which permitted a piece of slate to fall from the roof upon Savage's hand while he had hold of the car. His left hand was somewhat crushed and the third finger cut off.

November 5, 1900. Felix Burliska; age, 23; Polander; miner; single. Adam Zings; age 24; Polander; miner; single.

These two men were burned in the tenth north entry off No. 4 slope in Mine No. 1 of the McAlester Coal Company, at Hartshorn, Ind. T., at about 2 o'clock p. m. Both were severely burned and Burliska died on December 2. Burliska was a miner working in room No. 11, which was free from gas. He sometimes made it a practice after his day's work was over or when he wanted to take a little rest to go to the face of the entry. The entryman informed him there was gas at the face and objected to his coming. Burliska, however, stated that he had a safety lamp and knew how to handle gas, and would often go to look at the work in the entry in spite of their remonstrances. On this occasion he went to the face of the entry and either with a naked lamp

or by unskilled use of a safety lamp set fire to the gas, severely burning himself and Zings, who was there at work. Had he remained in his own working place or heeded the remonstrances of the entryman the accident would not have happened.

November 7, 1900. John Mosely; age, 25; American, colored; shot firer; single.

This accident occurred in Mine No. 15 of the McAlester Coal Company, at Alderson, at about 8 o'clock p. m. Mosely's duties as shot firer required him to enter the mine after 5 o'clock when all others were out, to fire the shots. This mine makes a good deal of gas, and the shot firers are provided with safety lamps and brushing canvas; for after the men were out, and there was no moving about or stir in the mine, small bodies of gas would accumulate at the working faces before the shot firer could make his round. In this case Mosely discovered a small body of gas at a point where he desired to fire a shot. He evidently endeavored to fan out the gas, but before ascertaining that he had done so sufficiently, he took in his naked lamp to light the fuse and thus ignited the gas, burning him so severely that he afterwards died.

November 9, 1900. Felix Zarlangen; age, 23; Italian; miner; single. Peter Cinocco; age, 35; Italian; miner; married.

These men were burned by an explosion of gas on the lower entry A in Mine No. 11 of the Osage Coal and Mining Company, at Krebs, Ind. T., at about 4 o'clock p. m. Zarlangen was slightly burned on the arms and back, while Cinocco was severely burned on his hands and arms. These men had been drilling some holes and tamping the shots, and while so engaged their lamps were properly placed upon the floor, for the men were both aware that in drilling and tamping the holes some gas would come out into their working place and of course gather at the roof. As they finished their work, however, either one or both took up their lamp, or lamps, and raised them to the roof, which, of course, ignited the gas and burned the men as described.

November 12, 1900. Peter Filone; age, 50; Italian; miner; married.

This accident by which Filone lost his life occurred in the eighth entry of Mine No. 1 of the McAlester Coal Company, at Hartshorne, Ind. T., about 4.40 o'clock p. m. This man was killed by a blown-out shot fired at an improper time and without notification to Filone, who was passing, and who was struck by the flying coal and killed.

November 16, 1900. Charles Bearer; age, 24; American; driver; married.

This accident occurred in Mine No. 3 of the McAlester Coal Company, at Gowen, Ind. T., in room No. 2 of "MN" entry, at about 9 o'clock a. m. This man was struck by a runaway trip of cars and somewhat severely bruised about the head, shoulders, and back.

November 19, 1900. John Haddart, sr.; age, 50; American; engineer; married.

This accident happened at New No. 4 shaft, Coalgate, Ind. T., operated by the Southwestern Coal and Improvement Company, at about 1.30 o'clock p. m. Haddart was running a hoisting engine at a new shaft which was being sunk. He had just started to hoist two

men from the shaft and had raised them a few feet when his engine stopped on the center. By using a friction brake on the drum he let the cage drop back to the shaft bottom; then placing his left foot in the spoke of the wheel he threw the engine off the center, but as he had not shut off all the steam, it started up very suddenly and caught his foot between the wheel and connecting rod, crushing it so badly that amputation was necessary.

November 20, 1900. Jerry Clayburne; age, 30; American; machine man; married.

This man was injured in Mine No. 7 of the McAlester Coal Company, at Alderson, Ind. T., in the tenth east back entry, at about 10 o'clock a. m. A brushing shot had been fired in the roof of Clayburne's working place, which he had worked off, and he was cleaning up preparatory to starting his machine. The shot had left a loose piece of rock hanging from the face, which it was apparent would soon fall. Clayburne, instead of taking this down, was watching it, expecting to jump away when it fell. It came down very suddenly and he did not get away quick enough. He was caught by the fall and his leg was broken.

December 6, 1900. Charles Gallagher; age, 33; Scotch; brusher; single.

This accident occurred in Mine No. 5 of the Osage Coal and Mining Company, Krebs, Ind. T., and in room No. 3, off the top main east entry, about 8 o'clock p. m. Gallagher was employed in this mine as a brusher, and on the evening of the accident, wanting a drilling machine, he started out to look for one. He went into room No. 3, off the top main east entry, with his lighted lamp on his head, igniting a body of gas in that room, burning him on his hands and face, from which injuries he died on December 21. Gallagher was familiar with the rules of the mine, and knew that the night gas man had not yet been through that part of the mine, so that he incurred great risk in going into a working place which had not yet been examined for gas, and one of whose condition he knew nothing.

December 7, 1900. Lewis Farassa, Italian; shot firer; single. G. B. Dallasasse; Italian; shot firer; single. Jim Carranto; Italian; shot firer, single.

These three men died from suffocation resulting from a very violent explosion in Mine No. 3 of the Devlin-Wear Coal Company, at Witteville, Ind. T., at about 8.30 o'clock p. m. Farassa and Carranto were in the air course of the fifth north entry, while Dalassasse was in room No. 1, off the fifth north. This explosion, beside resulting in the loss of three lives, practically wholly wrecked the mine, and it has not since been worked. There have been five or six serious and violent explosions in this mine, and as a result great precaution has been taken on the part of the management to avoid just this sort of an occurrence. The mine has been thoroughly sprinkled, and a system of shot firing has been installed by which, while the shots are being fired, no other persons are allowed in the mine. The shot firers go in after 5.30 p. m., and they have the entire night, if necessary, in which to do their work. After the earlier explosions in this mine, rigid instructions have been given the shot firers to take plenty of time, fire slowly, and only one or two shots at a time. In addition, they are instructed to fire no shots

whatever that were, because of their character, the least dangerous; and the shot firers were provided with a needle so that they might test any shot which seemed likely to prove a bad one and thus ascertain just how each shot was prepared. In this instance these shot firers did not take the needle, but left it in the blacksmith's shop, where it was found after the explosion. They also fired all the shots in the mine in very rapid succession, lighting seven shots at one time in the portion of the mine where this explosion originated. So rapidly had they fired the shots that they were completing their work at 8.30, after having been in the mine only three hours. An examination of the shots also disclosed the fact that there were two very badly prepared shots in the sixth north air course, which they fired. One of these shots was too tight, or too much on the solid, and the quantity of powder used too small, so that it would in all probability be a windy shot. Another shot at this point was overcharged with powder, which would cause it to throw wild and blow out flame. Both these shots had been tamped by the shot firers themselves, and they, therefore, had an opportunity to examine the same carefully. From the point of origin of the explosion the flame and wind had traveled 1,300 feet before finding an outlet at the shaft mouth, and the heat and force were most intense and violent. Coked coal dust to a depth of nearly 2 inches was found upon the mine timbers more than 50 feet from the source of the explosion. A sprag (a piece of wood about 2 inches in diameter and about 14 inches long) was blown through a prop; a powder keg was wadded into a small crevice as if it were tissue paper; a soft piece of tin about 2 inches square was deeply imbedded in a hard piece of timber; and as the force of the explosion found vent up the shaft it entirely destroyed the engine house and lifted up and blew out the roof of the mine and the sides of the shaft, so as to make it necessary to dig a new opening into the mine to recover the men's bodies. The men who were killed had worked in this mine as shot firers for some months, and had previously been employed in other mines in the same capacity. They lost their lives and wrecked the mine through their desire to save a few hours' work.

December 11, 1900. Tom Corado; age, 22; Poland; miner; single.

This accident occurred in Slope No. 1 of the McAlester Coal Company, at Alderson, Ind. T., in room No. 4, off the west entry, at about 10 o'clock p. m. Corado went into the mine at about 10 o'clock to fire several shots which he had himself prepared in his own room. In his desire to make his powder do a large amount of work he prepared very heavy shots, and in this case also at least one of the shots had been badly prepared, so that it blew out the tappings and made a windy shot and permitted the flame to go into the entry and into another room to which Corado had retreated after lighting his shots. By this flame he was burned about the face, neck, hands, and back, but not seriously.

December 12, 1900. William Harvey; age, 38; American; miner; married.

Harvey was struck by a piece of rock falling from the roof in room No. 10, off the second west entry of Mine No. 6 at Wilburton, Ind. T., and operated by Strong & Co., under contract with the Wilburton Coal and Mining Company. He was engaged in drilling a hole when the loose piece of rock from overhead fell upon his leg, breaking it in

two places. It seems that Harvey thought that his roof was safe, and while the piece of rock that fell was small, it caught him in such manner as to result in a broken leg.

December 14, 1900. Fred Fischer; age, 30; German; miner; single.

This man was severely burned about the body, face, and arms by a gas explosion in room No. 13, off the second entry of Mine No. 1 of the Samples Coal and Mining Company, near McAlester, Ind. T., at about 7.30 o'clock a. m. This man had been working in room 13, which had been generating a small quantity of gas near the roof. On the day of this accident, and just before it occurred, the gas man made an examination and discovered a small quantity of gas. He marked the room and informed Fischer personally of the presence of the gas, and that he must not take his naked light into the room until after the gas was brushed out. Just as he turned away he felt wind and heat and fell to the floor just in time to avoid being burned. Another miner also standing near was just in the act of pulling off his shirt for the purpose of going to work, and the shirt over his face and head protected him from injury. Fischer, however, had already discarded his shirt and himself lighted the gas by placing his lamp in his cap and lifting his head up near the roof. Having the whole of the upper portion of his body unprotected by a covering of any kind he was severely burned, and died on December 17.

January 3, 1901. Frank Enlow; age, 27; American; machine helper; married.

This accident occurred in room No. 80 of the second south entry off slope, in Mine No. 6 of the Atoka Coal and Mining Company at Lehigh, Ind. T., at about 9 o'clock a. m. of said day. This man was employed as an electric machine helper; he had worked at this business for a long time and was thoroughly familiar with the duties and the risks incident thereto. When this accident occurred Enlow, with two others, were about to swing the electric mining machine to the right from its former position in order to make another cut; Enlow was at the front of the machine, near the face; all the men were prying with iron bars on the iron skids to swing the machine around. By the carelessness or inadvertance of one or more of them the electric cable became caught between the machine and the iron skid at the rear, and this dragged the nipples from the sockets, allowing the nipples to fall upon the iron frame of the machine and making a short circuit. All three men were slightly and momentarily shocked. As soon as there was a short circuit made the circuit breaker was thrown out and the current ceased. Neither of the other men suffered in the least from this shock; the utmost power of the current was 240 volts, and the amount of shock was only such as is very frequently received by other men with impunity. In Enlow's case, however, he soon died, and the real cause of his death was no doubt heart failure, probably superinduced by the slight electric shock he had just received.

January 4, 1901. B. C. Ward; age, 36; American; switchman; married.

This accident occurred in the sixth west entry of Mine No. 3 at Gowen, Ind. T., operated by the McAlester Coal Company, and about 4.40 p. m. Ward's duties as switchman consisted in his receiving the empty trips of cars on the slope, switching them into the proper entry on a double track, or double parting, and attaching the rope to the

loaded cars that they might be raised up the slope from the bottom of the shaft. The switch by which he diverges the empty cars from the track on which the loaded cars are standing is operated by the foot and known as the "kick latch." In this instance the switch did not work properly and the empty cars came in along the track in front of the loaded cars and before Ward could get out of the way his leg was caught between the bumpers of the foremost empty car and the foremost loaded car. The only injury received at the time was a fracture of the right leg between the knee and ankle, but afterwards, on January 8, the injured man died.

January 7, 1901. S. J. Creggers; age, 30; American; miner; single.

This man was burned by a small explosion of gas in room No. 9 off the fourth east entry of Mine No. 50 of the Kansas and Texas Coal Company at Carbon, Ind. T., about 6.20 o'clock a. m. This man was somewhat severely burned about the face, neck, and ears, and hands and arms. On the morning of January 7 the gas man employed in this mine discovered a small body of gas in this man's working place, room No. 9. He placed a gas mark at the mouth of the room and warned Creggers, in addition, of the presence of gas there. Creggers placed his naked lamp in the mouth of the room, went inside, and in brushing the gas out drove it down onto his naked light, causing an explosion, burning him as above described.

January 8, 1901. Peter H. Kerrigan, sr.; trapper; married.

This accident occurred at the tenth north entry off fourth slope in Mine No. 1 of the McAlester Coal Company at Hartshorne, Ind. T., at about 10 o'clock a. m. The injured man was attending a door as trapper at fourth slope tenth north, and in opening a door for a car to pass he failed to get entirely out of the way of a car, which struck him, throwing him against the rib or side of the entry. He received some severe bruises about the hips but no bones were broken and the injury was not very serious.

January 14, 1901. Fulton Gray; age, 34; American; miner; single.

This man was injured by a slight explosion of gas in room No. 56, sixth west entry, in No. 7 mine of the McAlester Coal Company at Alderson, Ind. T., at about 7 o'clock a. m. The point where this man was burned while called a room was, in fact, a plane or narrow entry commenced where room 56 would have been, and was being driven up hill to connect with the entry above for purposes of ventilation. In driving this plane, before connection is made with the other entry, the gas is expelled by the use of pipes conveying compressed air, which is used in this mine to run the mining machines. At night when the men ceased work in this plane they would leave the air pipe lying with the valve open at the face, so that the moment the compressor started in the morning the escaping air would clear the room of gas which had accumulated during the night. The men working here were therefore furnished with a safety lamp and instructed to use the utmost caution in going into the working place in the morning, and to take in no open light until fully assured, by examination, that the place was free from gas. In this instance, however, everything indicates that this man must have gone direct to the face with his naked light and thus ignited the gas, resulting in his injury as stated.

January 15, 1901. Edwin Rolison; age, 1 helper; single.

This man was injured at upper B entry of M Coal and Mining Company, near Krebs, Ind. a. m. Rolison, with assistance, had moved a switch of upper B entry, and before placing it taking down some loose slate that was hanging. While doing this work a piece of rock behind on the back, slightly bruising his left shoulder.

January 16, 1901. Joe Bocavitch; age, 23; F

This accident occurred on the slope in No. 7 Coal Company at Alderson, Ind. T., at about 4 man had finished his work or decided to quit usual quitting time and started out and up the seventh lift he was struck by a descending trip cars, receiving a broken leg. At the point where was room at the side of the track for him to The cars did not go off the track, and the only occurrence of this accident is the attempt by t out of the mine by the slope at an unusual hou ing on the slope and his carelessness in failing trip of cars.

January 23, 1901. F. Kostankewicz; Polan

This accident occurred on the second north Mine No. 1 of the McAlester Coal Company, Kostankewicz was coupling cars of a trip w started, causing the cars to move along the t caught between the rear car and the rib of bruised.

On the 16th of January an explosion occu Hailey Coal and Mining Company, at Hailey ately after the explosion occurred the mine was smoke and gas that it was impossible to make time, and soon afterwards smoke began to iss such volume that it was very evident there was mouth of the shaft was therefore sealed up, ma and was kept in that condition until the mo smother and extinguish the fire. When the there was no evidence of fire, and after the were taken an examination was made. It was in No. 2 room on the top entry, west side of t of the explosion. The hole was 4½ feet deep heel, only about 12 inches, while at the point tained, as nearly as could be ascertained, abou It blew the coal all over the room, breaking it and there still remained in the solid coal 11 inc

The room was dry and the flame from the sh the fire increased as it traveled to the return ai fire in the loose coal in the room and the curta room was not burned. The first indication of of room No. 1 and thence down the "sligh" t The trap door on the "sligh" and also the pro

top entry toward the return air shaft were burned, and the mid wall of the air shaft was scorched. The force of the explosion did very little damage to the mine. The mid wall of the air shaft was blown out to about 45 feet from the top of the shaft; no stoppings were blown out, and the mine was at this date entirely free from gas and fully working again.

February 9, 1901. James Hamilton, age, 28; American; miner; single. Henry Hogue, age, 28; American; miner; single.

This accident occurred on the slope in Mine No. 2, operated by Perry Brothers, at Coalgate, Ind. T., at 8 o'clock a. m. These two men, with a third who was but very slightly injured, attempted to ride down the slope in an empty car as they entered the mine to go to work on this morning. As the rope rider in charge of the trip jumped on the car, he in some way slackened the rope so that the hook became detached from the car, allowing the car to rush rapidly down the slope, and it struck the parting and was wrecked. Hamilton was very severely injured, his spinal column having been dislocated, while Hogue had his right arm and right leg broken. The miners are strictly forbidden to ride to their work on the slope, but it is a difficult matter to entirely prevent this practice, and these men suffered the above injuries because of their violation of this rule.

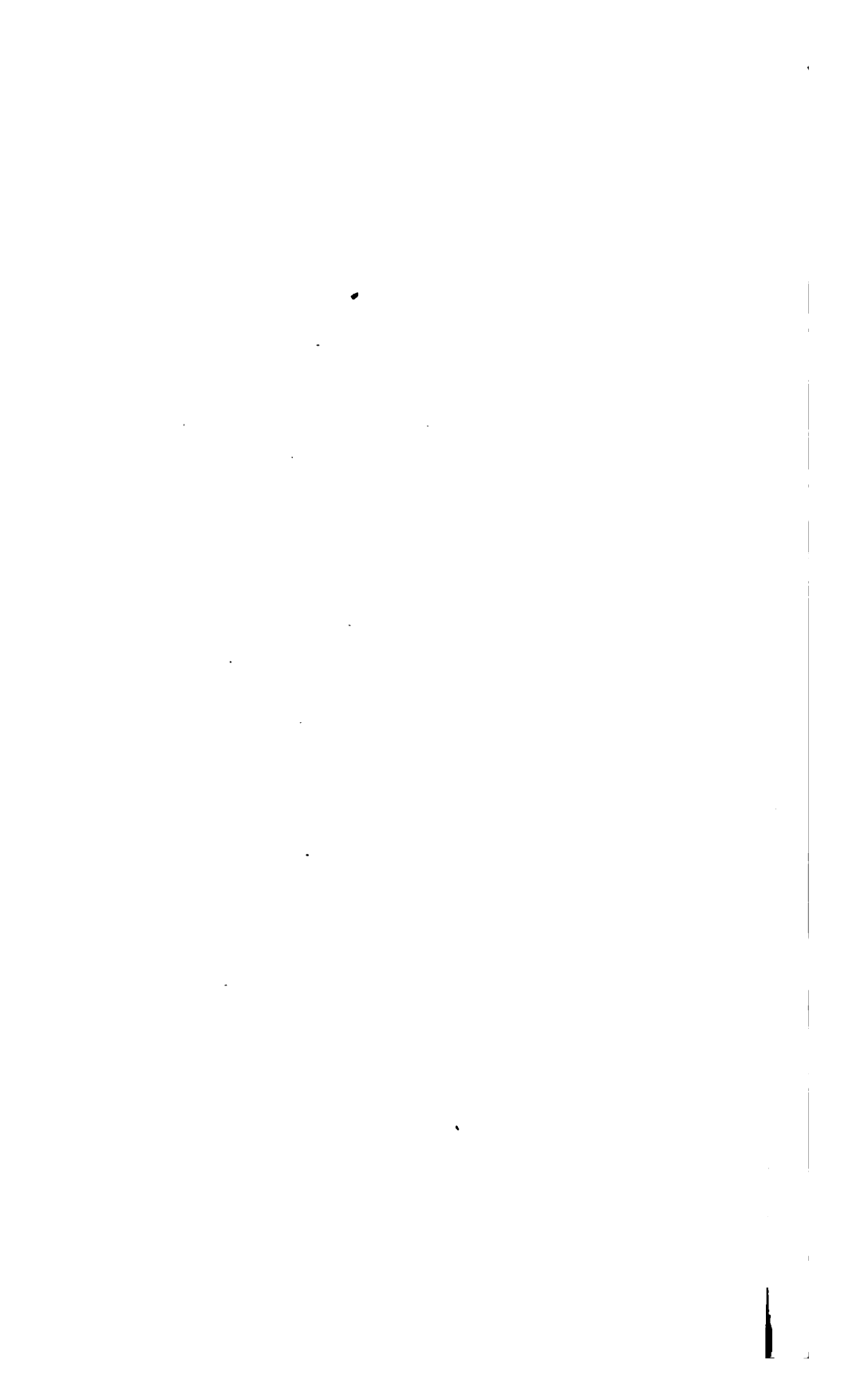
February 11, 1901. Edward White; age, 45; American; miner; married.

This man was killed by a fall of slate at his working place in room No. 9, off the first west entry of Mine No. 67 of the Kansas and Texas Coal Company at Carbon, Ind. T., at about 1 o'clock p. m. This is another instance of that class of accidents which it seems almost impossible to entirely prevent. White's room had been put in first-class condition and was apparently securely propped. As he was in a sitting position, working off coal at the face, a rock fell from the roof, crushing him so as to result in instant death. It is possible that the injured man had failed to sound his roof for loose pieces of rock, but it is more probable that the defect in the roof was one which was entirely concealed and which could not have been discovered by any examination, being one of the unavoidable risks incident to this work.

February 21, 1901. Antonio Whiterass; age, 34; Slav; miner; single.

This man was instantly killed by a shot which he had himself prepared in room No. 8, off the fourth west entry of Mine No. 1 of the Wilburton Coal and Mining Company, at Wilburton, Ind. T., and the accident happened at about 11.50 o'clock a. m. Whiterass had prepared two shots in this entry and other miners had prepared five more. After they had all fired and waited for the explosions some of the miners insisted that only six shots had gone off, while others claimed that all seven had been exploded. Whiterass, especially, insisted that seven had gone off, and notwithstanding the warnings of others who told him not to go back, at least for a while, he went right on into his room and evidently arrived just as the last shot went off. His head was crushed by the flying coal and he died instantly.

February 28, 1901. William Welch; age, 50; Welsh; shot firer; married. Batiste Rabia; age, 27; Italian; shot firer; single. Steve Dluca; age, 29; Austrian; shot firer; married.



These three men lost their lives in one of the most violent explosions that has ever occurred in the Indian Territory, that of February 28, 1901, in Mine No. 5 of the Osage Coal and Mining Company, at Krebs, Ind. T., a detailed account of which explosion is here given.

On the 28th day of February, 1901, an explosion occurred in No. 5 mine, near Krebs, operated by the Osage Coal and Mining Company, causing the death of three persons and 15 mules. The explosion occurred after the day's work had been completed and only the three shot firers were in the mine; they were all killed. The mine was ventilated by a 15-foot Crawford & McCrimmond fan, which supplied an abundant quantity of pure air, said fan being located on an air shaft about 160 feet west of the main or hoisting shaft. At the bottom of the hoisting shaft the guides and shaft timbers were blown out and disarranged so that the cages could not be run nearer to the bottom of the shaft than 40 feet. An entrance was soon effected into the mine after the explosion, when it was found that the mine had been greatly damaged. A great many of the timbers on the double partings had been blown out, and large falls of slate had taken place, which made it both difficult and dangerous to proceed into the workings; also the flame had crossed from the east side to the west side of shaft, where the stables were located, setting fire to the hay and woodwork of same, which turned out to be most disastrous and expensive. This will be taken up more fully later. Welch's body was found at the entrance to the D entry plane. He was not burned, death being caused by the after damp. Steve Dluca's body was found in the upper main east entry, between Nos. 5 and 6 rooms, and was burned. Batiste Rabia's body was found at the face of No. 8 room, upper main east entry, also being burned. Mr. Welch and Steve Dluca were found the night of the explosion, but Rabia's body was not found until the 4th day of March, four days after the accident. It is clear to the investigators that Welch fired the fatal shot. He, no doubt, lit the shot in No. 12 room on the D entry, then retired to a place of safety. After the explosion started, which traveled out the D or second east entry, Welch tried to escape by the same route, but the deadly after damp was there in such quantities that he was suffocated by same. The other two men, who were both in the main east entries, encountered the flame that traveled from the seat of explosion and were burned and suffocated by the after damp. The explosion originated in the D or second east entry (plane), and was caused by the shot firer firing a badly prepared shot.

Investigation showed that a large body of flame had traveled from No. 12 room out the D or second east entry to plane, thence down plane, dividing at the first east and west entries, A and B. A considerable portion of the flame traveled in the first east or B entry to face, thence down along the long wall face to main east upper entry, traversing this entry into the last break-through, thence down to the lower entry, making its exit by same. No great violence was observed in this entry, but charred or coked coal dust was in evidence on props and sides of entry, showing clearly the direction the fire had traveled. Coming back to the plane where the flame divided, considerable force was exerted in the first west or A entry, but no evidence was found showing any large quantity of fire had traveled in this entry beyond the end of double switch. However, great force was shown here, as the trapdoor in this entry was blown from the plane quite a distance and broken into small pieces. It was clearly in evidence that great

force and much flame had traveled down the plane to the double switch leading to the shaft. Here great havoc was wrought, many cross timbers being blown out, heavy falls of slate resulting thereby. Here the force seems to have again divided, part traveling in the main east entry and part going to the west side of shaft. Investigation showed that the force traveling in the main east stopped after it had traveled between 300 and 400 feet. It is believed by all who investigated that this force met the force that had traveled in the first east or B entry, thence down to main east, and was making its exit thereby. Props and electric wires were blown out from the face of this entry, while props, timbers, and other débris were blown inward from junction of plane with said entry. For a considerable distance this entry was not disturbed. This, in my opinion, was the point where the two forces met and spent their energy.

Proceeding out toward the shaft from the junction of the plane with main east entry, great force was in evidence; loaded cars had been overturned and large timbers displaced. Coked coal dust was found all over timbers and sides of entry. Two pairs of scales for weighing the coal in pit cars were placed at the entrance to main east and west entries. Both pairs of scales were forced down into scale pit, the levers and bearings being broken into many pieces. These scales had a weighing capacity of 5,000 pounds each. It will be readily understood what an enormous pressure must have been exerted on the platform of these scales so that they were forced down into the pit, breaking the castings so completely that they were only fit for scrap. It is evident that the force must again have divided when it reached the junction of entries, main east and west. No evidence of flame having passed up the shaft was observed, but, as stated before, much force was exerted at the bottom of hoisting shaft. Large quantities of dust and smoke were emitted from mouth of shaft simultaneously with a dull, rumbling sound that was heard, and which gave the first notice of the explosion to the outside world. In my opinion the moist and wet condition of the shaft destroyed that part of the flame that traveled in this direction. It was thoroughly in evidence that a large body of fire had passed the shaft, traveling into the main west entry for a distance of 300 feet, or to the end of double switch. Beyond this no sign of fire was observed, but the force of the explosion reached the face of the west entry, which was indicated by the blowing out of stoppings, etc. It was on this double switch that the great damage to property occurred. The stables were located here, also the slope engine room, about 100 feet to the rise. As before stated, the flame set fire to the hay and timber in and around the stables, also a tool house. The large falls of slate which had fallen on the switch made it impossible to reach the fire, which had been started, until said falls had been cleared away. Hence the reason that the fires had such hold before work could be begun on them. The break-throughs between main west lower and upper entries were utilized for stables, and it was here that the fire took the greatest hold on coal, burning up onto the upper entry, a distance of 30 feet. Before the fire could be confined or surrounded so that it could not spread, 275 feet of upper entry had started to burn. The fire also traveled up the air course leading from upper entry and into the slope engine room, a distance of 100 feet.

The coal on both sides of entries, break-throughs, and air courses was very dry, ignited readily, and made a fierce fire, covering an area

of something like 500 feet long by 10 feet wide. The great heat, coupled with the steam generated from the water used in extinguishing the fire, caused the roof to crumble and fall from a great height. It is safe to say that the roof fell to an average height of 15 feet, and in some places the sides slid in so that the width was not less than 20 feet. This will give an idea of the magnitude of the work encountered in putting out this fire. Work was begun shortly after the explosion occurred, and a large force of men, working eight-hour shifts, worked continuously until about the end of April, covering a period of nearly two months, before this fire was extinguished. Owing to the extreme danger encountered in the putting out of this fire, it was very difficult to get men to do the work, and amongst those who could be induced to work many were impractical and unskilled. On the night of March 19 four men were injured, who were working at the fire, three severely and one slightly. One of them died a few hours after the accident. These men had cleared out the débris sufficient to give them room to place a set of timbers. They were in the act of setting up the timber, when, without the slightest warning, a heavy fall of slate came down on the timbers that had already been placed, knocking out six sets. The fall of slate and timbers fell on three of the men, pinning them down so that they could not move. Through some cause that has never been clearly explained they were not relieved until about twenty minutes had elapsed. The slate that had fallen on these men was almost red hot, and burned into the flesh of those who were lying under it, causing intense pain and suffering to the injured persons, not only at the time but for many weeks afterwards.

The first coal hoisted from this mine after the explosion was on April 29, and this was only from the main east and west entries. Some time in the last half of May the plane was cleared up, and the C and D or second east and west entries were started. June 15 the B or first east was cleaned up, and on July 10 the A or first west entry was clean and began producing coal. At this writing the slope has been cleaned and timbered down to the first entries, G and H, but it will take nearly a month longer to clear the falls from them so that coal can be produced. The workings below the G and H are badly fallen, and considerable water has accumulated. It will be safe to estimate that it will require at least two months longer to clear same; thus it will be about the month of October before the mine can be restored to its normal condition, or as it was at the time the explosion occurred, on the 28th of February. The cost of repairing the damage caused directly and indirectly by the explosion will not be less than \$30,000. So far as the destruction of property is concerned, this is by far the most serious explosion that has ever occurred in the Indian Territory. Hence the reason that so much space has been taken up in trying to impart some of the details to others who were not on the ground.

March 5, 1901. J. Demost, a miner, was fatally injured in room No. 11, off the third west entry in Mine No. 2, operated by D. Edwards & Son, near McAlester, Ind. T., at about 10 o'clock a. m.

On the morning this accident occurred Demost was instructed by the mine foreman to mine no more coal in his room and do no other work there until he had safely propped his roof. This was done because the props had been blown down the night before by a shot. He disobeyed these instructions and went to work in his room, mining coal,

when a fall of slate from the roof occurred, breaking his leg and crushing his back so that he soon afterwards died.

March 8, 1901. William Patton; age, 23; American, colored; machine helper; single.

This accident occurred in room No. 8, off the fifth south entry in Mine No. 9 of the Milby and Dow Coal Company, at Dow, Ind. T., at about 1.30 p. m. Patton was moving his machine to the face of No. 8 room preparatory to making a cutting. While thus engaged, a fall of slate from the roof fell upon his back, crushing him and causing internal injuries resulting in his death.

March 9, 1901. William Chambers; age, 27; American, colored; helper; single.

This accident occurred at No. 5 shaft of the McAlester Coal Company, at Alderson, Ind. T., at about 8 o'clock a. m. Some rails had been lowered in the cage to the bottom of the shaft, and for this purpose the bonnet on the cage was raised. Chambers, in company with two other men, got on the cage at the bottom and signaled to have the cage hoisted without first lowering the bonnet. When about half way up the shaft the bonnet fell down, knocked Chambers off the cage, and he fell to the bottom of the shaft, being instantly killed.

March 19, 1901. Otto Tronnier; age, 19; American; driver; single. William Cameron, jr.; age, 31; Scotch; machine foreman; married. George McMurdo; age, 43; Scotch; night foreman; married. Henry Evans; age, 28; American, colored; miner; married.

This accident happened in the main west air course near the first break-through in Mine No. 5 of the Osage Coal and Mining Company near Krebs, Ind. T., about 11.30 p. m. These four men were all engaged in special work as volunteers in cleaning up the main west entry air course after the big explosion of February 28, 1901, in this mine, and while placing a set of timbers near the first break-through, the roof fell in, throwing out the timbers, falling upon the men and crushing, bruising, and burning them in varying degrees. The slate had become hot from the fire which had been burning since the former explosion and from the steam generated in extinguishing it, and the men were therefore badly burned before they could be removed. Tronnier was very severely burned about the abdomen, though he did not die. William Cameron, jr., was crushed and bruised on the side of his head, left arm broken, and badly bruised and burned all over his body. George McMurdo received a split finger and some slight bruises and burns. Henry Evans was so badly crushed and burned that he died.

March 20, 1901. John Bronco; age, 30; Polish; miner; single.

This accident occurred in room No. 1 of Mine No. 1, operated by the McAlester Coal Company, at Alderson, Ind. T., at about 5 o'clock p. m. Bronco was at work at his regular working place when he was crushed and instantly killed by a fall of rock from the roof. A miner working in a room is required to take care of his own working place, and therefore they exercise their own judgment as to the amount of propping they will do. In this case Bronco's attention had been called to an apparently bad piece of rock in the roof, but he remarked that he knew when the roof was dangerous or not, and exercised his own judgment in continuing to work without further propping.

March 28, 1901. Albert Fields; age, 13; American, colored; car oiler; single.

This accident occurred in No. 5 mine of the McAlester Coal Company, at Alderson, Ind. T., at about 10 o'clock a. m. Fields was near the foot of the shaft, and just as a trip of cars was coming in he started to cross the track. He was warned to look out by other parties, but replied that he knew enough to take care of himself, and continued on across the track just in front of the cars. He apparently misjudged the speed or the distance and was struck by the trip of cars, receiving a broken leg.

March 29, 1901. James Andrews; age, 31; American; miner; single.

This accident occurred in room No. 5, off the second east entry in Mine No. 67 of the Kansas and Texas Coal Company, at Carbon, Ind. T., at about 8 o'clock p. m. This man was burned on the face and hands by flame from a blown-out shot. This mine at this date was not extensively developed, and therefore the shot firers going in in the evening, after the men were out, had but little to do, and they therefore themselves got out very quickly. It seems that some of the miners endeavored to take advantage of this fact and go into the mines in the early evening, after the shot firers were out, to prepare and fire shots of their own, so as to enable them to get a large amount of coal the next day. This was a gross violation of rules, and was always done without the knowledge of the pit boss. In this instance Andrews and another man went in this mine at about 8 o'clock p. m. to fire shots in their rooms. Andrews lit his shots and went out in the entry, about 35 feet distant, where, believing himself safe, he stopped to fill his lamp with oil. The shots went off and one or more of them proved to be windy, blowing out the tamping, and the flame from which rushed down the entry and burned Andrews, as stated.

April 3, 1901. Theodore Schoenfelt; age, 24; American; miner; single.

This accident occurred in room No. 2, off the fifth west entry in Mine No. 2 of the Wilburton Coal and Mining Company, at Wilburton, Ind. T., at about 2 o'clock p. m. This man was at work in his room, mining off a standing shot. The coal was considerably loosened and a neighboring miner called Schoenfelt's attention to the likelihood that it would fall. Schoenfelt was sure, however, and so stated, that the coal was not near giving way, and continued to work without propping or taking other precautions, and was suddenly struck by a heavy fall of coal, resulting in a broken leg.

April 5, 1901. J. H. Price; age, 28; American, colored; miner; single.

This accident occurred in room No. 2, off the top entry main, north of Mine No. 6½ of the Atoka Coal and Mining Company, at Lehigh, Ind. T., at about 4.30 p. m. This man was killed by being caught by a shot and lost his life through his willingness and in an attempt to oblige his friend. The case is rather peculiar, and the facts are given fully, as follows:

W. Butler worked in room No. 2, and as Butler had a child that was very sick at home he requested Joseph Moulton, who worked in No. 3 room, to fire his shots, so that he might get home a little earlier. For some reason not known, Moulton afterwards had asked Mr. Price (who worked in No. 10 room in said entry) to fire Butler's shot, which Price agreed to do. However, a little after 4 o'clock, and just as Butler

had completed tamping his shot, some one started to fire in the entry, and Butler, thinking that he had been mistaken in the time and that it was firing time, lit his own shot and retired through the break-through into No. 3 room. It appears that just as Butler got well out of his own room, Price came along and entered No. 2 room from the entry, passing up the roadway in company with another man named Brinkley. Both reached the face, and were in the act of looking for the fuse when the shot which had already been lit by Butler suddenly went off, blowing out about 1½ tons of coal, part of which struck Price about the head, injuring him so severely that he died four hours afterwards. Brinkley, who was standing close to Price, was not injured.

Had the firing not started until the proper time, Butler would not have lit his shot, and Price would have been in no danger when he proceeded to carry out the arrangement entered into between Butler, Moulton, and himself, and a little forethought on the part of Butler or Moulton might have prevented this accident.

April 6, 1901. John Raleigh; age, 50; American; machinist; married.

This man was burned by a small explosion of gas in the ninth west entry of Mine No. 5 of the McAlester Coal Company, at Alderson, Ind. T., about 2 o'clock p. m. He went into a working place which was dead-lined as being dangerous on account of gas, and ignited the gas in this room, resulting in some comparatively slight burns on his face, head, hands, and wrists.

April 8, 1901. Thomas Corano; age, 19; American; driver; single.

This accident happened on A entry between rooms 96 and 97 in Mine No. 11 of the Osage Coal and Mining Company, at Krebs, Ind. T., at about 3.15 p. m. Corano was employed in this mine as a mule driver, his run being along A entry, in connection with two other drivers. On the day of this accident he was coming out with a trip, and while running very rapidly between rooms 96 and 97 his mule slightly shied. Corano, thinking that this was due to a fall of rock, jumped off the car. In doing so he fell, was run over by the car, and suffered a fracture of the collar bone and a dislocation of the right arm, besides some other wounds and bruises. The road where Corano was injured was in good shape and all clear, and his injury was due to a mistake in judgment on his part.

April 12, 1901. Lacardio Bolenzuda; age, 36; Mexican; miner; married.

This man had his legs broken, two ribs broken, one of which punctured his lung, and a severe cut on the face, all resulting from a fall of slate in his working place, which was room No. 5 east in Mine No. 1, operated by the McAlester Coal Company, at Alderson, Ind. T. The accident happened at about 3 o'clock p. m. This accident was due to the fact that Bolenzuda had failed to properly prop the roof of his working place after the firing of shots. He had extra props in his room, but had not put them up for some distance back of the face, and was therefore caught by a heavy fall from the roof.

April 16, 1901. William Grego; age, 33; miner; married. Carl Meizo; age, 17; miner; single. Ben Youcrewski; age, 16; miner; single.

This was a very serious explosion occurring on the fourth slope of the seventh north entry in Mine No. 1 of the McAlester Coal Company, at Hartshorne, Ind. T., which occurred at about 4.30 p. m. on the day named and resulted in the severe burning of all three men, Grego and Meizo being killed, while Youcrewski was very extensively and severely though not fatally burned, and I give below a brief his-

tory of the investigation and examination I made of this mine and into the cause of the explosion immediately after the same occurred:

The explosion originated in what is known as the seventh north entry leading from slope, counting from the surface, or what might be more properly named the second north entry, said entry being only the second lift below the level of the hoisting shaft.

The face of this entry has been driven in a distance of about 3,000 feet from slope, or 3,800 feet from bottom of hoisting shaft. No visible sign of force could be observed till we proceeded within about 500 feet of the face of the entry. At this point a door had been blown down, and between this point and the face of the entry six stopings were blown out; but, all having been repaired temporarily, we had no difficulty in reaching the face. About 500 feet from the face of the entry the main return air course leading from the lower entries joins the lower entry of the second north, and from this point we proceeded to the face on lower entry. No sign of force was visible here. On reaching the entry face (which is only a few feet past the break-through leading to upper entry) we examined for gas, but no trace was found, and we then proceeded to upper entry and tested again for gas, and found just enough to show on the safety lamp. One shot had been prepared in each of this pair of entries, but had not been fired. Both shots were what is termed cutting shots, and were prepared exactly alike, and may be described as follows: Depth of cutting, 2 feet 6 inches; holes drilled, 4 feet 6 inches. In the lower entry a cartridge filled with powder stood at the mouth of drill hole, which had 20 inches of powder in it. You will notice that the drill hole was drilled two feet beyond the back of cutting, and if you place a cartridge of 20 inches of powder in same it will not fill up more than 18 inches of drill hole, which will leave the outer end of the powder 6 inches ahead of the back of the cutting. There is only one conclusion to be arrived at regarding these two shots, namely, they were badly prepared and extremely dangerous to fire.

As these two shots had nothing to do with the explosion they are only described for the purpose of showing what great risk men will take so that a little manual labor may be saved.

From the face of the entries we traveled back on the upper entry between 40 and 50 feet. Here a start had just been made to turn a room—in fact the first shots had been prepared on the day of the explosion, and as I am of the opinion that this is the point where the explosion originated, I will describe the position of shots, etc., by a rough sketch, so that the situation may be more easily understood.

The above sketch shows the position of the two holes that had been prepared in the room just beginning. You will see that a 6-foot hole marked No. 1 had been drilled, beginning at nothing, gripping into the solid coal, till at the back of the hole it was nearly 5 feet on the solid (what is termed a light heel and heavy point), also a hole 4 feet 6 inches was drilled at right angles to entry, marked No. 2. A glance at the sketch will show that the points of the two holes where the powder would be placed are a very short distance apart. No. 1 shot had been fired, blowing off the heel about half the distance of hole. No. 2 shot had not been fired, the tamping remaining in the hole intact. However, on the tamping being drilled out it was found that the space occupied by the powder was vacant, showing that from some cause it had exploded.

After carefully considering the above facts, I have come to the conclusion that when No. 1 shot was fired the powder fractured the coal ahead of the point of hole, making connection with the point of No. 2 hole, the flame ignited the powder in No. 2 hole, and flame of same no doubt rushed through fractures made by No. 1 shot. On the powder of No. 2 shot being ignited, and not being confined owing to the fracture made in coal by the first shot, I am of the opinion that flame thus caused ignited the smoke and dust created by the first shot, and that this was the sole cause of the explosion.

The entire absence of accumulated dust, the very slight traces of gas found, notwithstanding the fact that the ventilation had only been temporarily restored, and the damp condition of the floor, convinces me that the necessary conditions were not present, but that they had to be created, and that they were created in the manner afore described; also the fact that the men injured and killed had worked from 7 o'clock in the morning up to the time of the explosion with open lamps, and that the bodies of the men were found near the point of origin of explosion, shows that no unusual conditions had been observed by them, also that they were in no way alarmed or they would have no doubt retired to a more remote place when they lit their shots.

No. 1 shot was not a safe shot to fire, the heel being too light, but in all probability would not have caused the explosion had it not connected with powder in No. 2 shot. The cause of the explosion may be attributable to the anxiety of the workmen to do their work too hurriedly, and in trying to make powder do work that should be done by hand labor.

April 22, 1901. John Fabry; age, 25; Polander; miner; single.

This accident happened on the slope in Mine No. 1 of the McAlester Coal Company, at Alderson, Ind. T., at about 4 o'clock p. m. Fabry, whose duty it was to switch the cars coming down the slope into the various entries, communicated with the engineer by means of a bell wire, and at the time of this accident he was on the wrong side of the wire and the car that was being switched into the entry, and he had to reach over the car to pull the bell wire. The rope ran out of the sheave, as it sometimes does, in spite of the utmost precaution, and Fabry, being on the wrong side of the rope, as stated, was squeezed between the rope and the side of the entry, which resulted in a severely bruised ankle.

April 23, 1901. Jess Martin; age, 25; American, colored; miner; married.

This is another accident arising from a fall of slate from a roof in the first east room in Slope Mine No. 3 of the McAlester Coal Company, near Alderson, Ind. T., about 10 o'clock a. m. Jess Martin and a butty were working in the room described, and the butty noticed a loose piece of draw slate in the roof over where Martin was working and called Martin's attention to it. Martin sounded it with his pick, and concluded and stated that it was safe, and therefore continued to work without propping, when the slate fell and crushed and injured his back.

April 24, 1901. Stephen J. Rayfor; age, 28; miner; single.

This man was also injured by a fall of rock from the roof, which occurred in room No. 5 off the first west entry in Mine No. 3 of the McAlester Coal Company, at Gowen, Ind. T., at 1 o'clock p. m. Rayfor went into his working place a short time after a shot had been fired therein for the purpose of mining off the shot. He first began setting some props to make the roof secure, and while scraping away some coal on the bottom at a point where he desired to set a prop the loose rock fell from the roof, breaking his left leg and injuring his right shoulder.

April 25, 1901. Joseph Curry; age, 53; Irish; timber man; married.

This accident occurred at the switch on C entry in Mine No. 11 of the Osage Coal and Mining Company, at Krebs, Ind. T., at about 10.30 o'clock a. m. Curry was a timber man and was engaged in making some repairs on the track at the C entry switch, when he says he heard the boss driver call out to him that the trip was coming into that switch. Curry also says that he saw the driver throw the switch to let the cars in, but that his mind was on other matters and he forgot for a few moments all about the trip, which came in and struck him, breaking his left leg. Curry needed only to have moved to one side, which he had ample time to do, to have avoided this injury, which was the result of his fit of absent-mindedness.

April 26, 1901. William Evans; age, 23; Welch; mule driver; single.

Evans was run over by a pit car and had his left leg broken on A entry in No. 11 mine of the Osage Coal and Mining Company, at Krebs,

Ind. T., at about 9.30 a. m. Evans was riding on the front car of the trip which he was bringing out along the A entry on the day of this accident, when for some reason and without any cause whatever he jumped off. He was struck by the second car in the trip and knocked down under the car, which ran over him, breaking his leg and otherwise slightly bruising him.

April 26, 1901. C. M. Hawkins; age, 50; American; car trimmer; married.

This man was instantly killed at mine No. 1 of the Hailey Coal and Mining Company, at Haileyville, Ind. T., at about 2 o'clock p. m. of the above date by falling down the shaft. When Hawkins met his death he was in the act of sending an empty car down the shaft, thinking that the cage was in proper position for him to do so. He had to open the safety gates, and it is surprising that he did not notice while doing this that the cage on the opposite side was up and the one on his side down at the bottom. He pushed the car toward where the cage would have been had it been up on his side, and then as the car toppled over the edge he endeavored to grapple it and hold it back and prevent it from falling down the shaft. In doing this he lost his balance and fell with the car to the bottom, being instantly killed.

April 28, 1901. William Kennedy; age, 45; American; pumper; married.

This accident occurred at the top of the shaft of Mine No. 1 of The McAlester Coal Company at Hartshorne, Ind. T., about 4 o'clock a. m. Kennedy, who was a pumper working at night, came to the top on the cage at about 4 o'clock on the morning of the accident, as usual. The night engineer hoisted the cage a short distance, about 3 feet, above the landing. Kennedy came up from the bottom without any light and when the cage stopped, immediately stepped off without noticing that the cage was not on the level with the landing. He fell and hurt his knee cap, which has since resulted in the necessity for the amputation of his leg.

April 26, 1901. William Mitchell; age, 24; American; driver; single.

This accident occurred in the shaft of Mine No. 7 of the Atoka Coal and Mining Company, at Lehigh, Ind. T., at about 5 o'clock p. m. Mitchell, with others, got on the cage at the bottom to be hoisted to the top. After all were on, the cager ascertaining that they were all right signaled the engineer to hoist, and the cage started to ascend. After ascending a short distance, Mitchell, who was subject to fainting spells or fits, apparently fainted and fell, being caught between the cage and buntons of the shaft. Before the cage could be stopped he was severely crushed so that death resulted shortly afterwards.

April 29, 1901. Dom Wasso (Serak); age, 25; Polander; miner; single. Wylie Clark; age, 28; American; colored; driver; married. Emanuel Taylor; age, 28; American; colored; miner; single. Andrew Pisco; age, 28; Polander; miner; single. Joe Peters (Petrovitch); age, 35; Polander; miner; married. Paoli Tosti; age, 22; Polander; miner; single. Jack Farney; age, 50; Irish; miner; married. William Farney, son of Jack Farney. L. C. Sutton; age, 20; American; miner; single. Pat Woods; age, 16; American; miner; single. William Figenshoe; age, 40; American; miner; married. William Figen-

shoe, jr., son of William Figenshoe. Mat Anderson; age, 50; American; colored; miner; married. Sam Hill; age, 28; American; colored; miner; single. Ed Anderson; age, 18; American; colored; miner; single. Mose Garret; miner; American. Riley Williams; miner; American. Charles Griffin; American; miner.

The above-named men were all injured in a terrific explosion which occurred in Mine No. 5, operated by The McAlester Coal Company at Alderson, Ind. T., on the day named. The first five, viz, Dom Wasso, Wylie Clark, Emanuel Taylor, Andrew Pisco, and Joe Peters, were all dead when their bodies were recovered from the mine. The sixth, viz, Paoli Tosti, was so severely injured that he died on May 2 following. The others were all injured in varying degrees but not fatally. In point of loss of life and number of injured this was the worst explosion of the year, and indeed the worst in the Territory since the great explosion of 1892. I therefore give a brief history of the examination and investigation of the condition of the mine and of the origin and cause of the explosion made immediately after the explosion occurred:

The explosion occurred on the morning of April 29, about 6.50, just when the men were proceeding into the mines to begin their labors. A number had already entered the mines, while others were at the mouth of the shaft and slope ready to go in, when in a moment a rush of wind, carrying with it clouds of dust and débris, suddenly burst from both the mouth of the shaft and the slope. All present realized in a moment that an explosion had taken place, and it was only a short time until the rescuing parties began their hazardous labors of trying to rescue their fellow-men. It will be sufficient for me to say that about 10 o'clock all the men had been reached (except one man, who was not found until 8 p. m. Tuesday).

After the excitement of getting the men out of the mines was over, and the situation could be properly gleaned, it was found that five persons had lost their lives, twelve being more or less injured, four of them rather seriously.

There are two openings in connection with this explosion to be considered. First, the slope situated on the crop line, which has been driven down and connected with the workings of No. 5 shaft, said shaft being located about 3,600 feet in a southern direction from slope and is sunk to a depth of 550 feet, making it about 70 feet deeper than any other shaft in the Indian Territory. Eleven entries have been driven from each side of the slope, running east and west. The workings of these mines are ventilated by a 20-foot fan on the shaft, forcing air into the mines, and a 15-foot fan exhausting air near the mouth of the slope.

Shortly after the men had been taken out of the mines, Mr. S. Guerrier, special agent, Michael Wood, pit boss, and myself proceeded to make an investigation as to the origin, cause, and effect. We entered the mine by the shaft, proceeding along the east entry for a distance of 400 feet, where we reached the bottom or junction of slope; proceeding up the slope we found an abundant current of air traveling on the slope, but, as the stoppings had been blown out, it was not circulating around the working places. No violence or sign of fire was observed until we reached the tenth west entry, excepting three stoppings, which had been blown out between the tenth and eleventh entries.

The door on the mouth of the tenth west entry had been blown to the slope, a distance of 20 feet from its original place. On the east side of slope, and directly opposite the tenth west entry, deposits of charred coal dust were found; like deposits were found on the sides and timbers of slope, and continuing up the slope for a distance of over 600 feet. The door of the ninth west entry had also been blown out to the slope, showing that force had come out said entry. The door of the eighth west entry was blown in, showing that force had been exerted from the slope a short distance above the eighth west entry.

No visible sign could be observed to lead me to believe that the flame had extended much beyond that point; hence we did not continue investigation there. But a short distance above the eighth entry nearly all the stoppings on both sides of the slope had been blown out between the tenth and eighth entries, which disarranged the ventilation; and when we left the line of main slope we had to proceed with great caution on the side track of the tenth west entry. Loaded cars were standing here; also two empty cars. None of these cars had been disturbed, neither had the coal on top of the loaded cars been removed or disturbed, this showing that the explosion was of a rather feeble nature. At this point, however, coked coal dust was

found in greater quantities than at any other place—said coal dust being on the inner ends of cars and inner sides of props; that is, on the end of cars and sides of props next the face, which shows clearly that explosion traveled out this entry.

The ventilation being badly deranged in this entry, no further examination of same was made until the following day. We then proceeded to the ninth west entry, and almost the same conditions, we found, existed as in the tenth west entry, the only difference being that a smaller quantity of coked coal dust was found. Still there was sufficient to show that flame had come out of this entry as well as the tenth.

Further investigation here did not seem prudent till the ventilation was restored, and we did nothing until the following day, when we found the tenth west all clear. We then proceeded to try to locate the point of origination. We traveled in the lower entry, or air course, and found the stoppings between the air course and entries had been blown out toward the air course. At the working face an empty car was standing undisturbed. No gas was found in the upper or lower entries. We examined No. 7 room and found nothing unusual; examined No. 6 room and found that shots had been fired, which had blown out the coal violently, and must have created considerable flame. An examination of the props showed that they were covered with coked coal dust on the side next the face, while on the opposite side of props an almost entire absence of coked coal dust was observed. No. 5 room showed the same conditions.

We then proceeded out, examining the different rooms as we went, but nothing of note was observed until we reached No. 2 room. Here we found one badly prepared shot had been fired, such a shot, in my opinion, as should not have been fired. The hole was drilled about 4 feet; the point of hole was 6 feet 3 inches on the solid. No mining had been done. Flame traveled down this room. An examination leads me to believe that it divided at the mouth of room, part going toward the slope and part traveling up the air course to the ninth entry, traveling over part of this entry and finally making its exit on to the slope.

Those that were killed and injured by the explosion were found between the eighth and tenth entries. Others injured outside of this sphere were mostly injured by the after damps.

After making this examination and considering the different circumstances and conditions observed, I have come to the conclusion that a bad shot must have been fired in the tenth west entry, and in either the second or sixth room. The shots examined in either of these were such as, in my opinion, might cause such an explosion. The probabilities that it was a gas explosion are very remote, for the following reasons:

Had any person fired a body of gas, he could only have done so in the rooms referred to (2 and 6), as one of these points is the starting point of explosion, hence he could not have escaped being burned to a crisp, and would have been found at the point where he ignited the gas. This not being the conditions found, I conclude that it was not a gas explosion, but, as before stated, originated from a blown-out or windy shot.

The only man found in this entry inside of the side track was Joe Peters. He worked in the air course, and was no doubt at work when the explosion occurred. He was afterwards found at the face of No. 6 room, dead, and he was not burned, but had succumbed to the after damps, thus showing that the trouble originated outside of his working face and that in his efforts to escape he had mistaken his way and wandered up No. 6 room.

The reason that so many escaped may be accounted for in the following way: The fans, not being injured, continued the supply of pure air, which speedily removed the after damp. Also, the moist, and some places wet, condition of slope confined the explosion into a small area.

I also noticed that the floor of the tenth west entry was damp, thus showing that they had been recently sprinkled. It is clear that the only persons that could have explained the cause of the explosion are numbered among the dead, and what I have here said is drawn only from examination and, to some extent, supposition.

May 1, 1901. W. H. Hurt; age, 28; American; colored; miner; single.

This accident occurred on the slope in Mine No. 1 of the McAlester Coal Company, near Alderson, Ind. T., at about 7 o'clock a. m. Hurt was loafing on the slope when he ought to have been at work, and was admonished by the pit boss to go to work. While he was still on the slope, however, he was caught by a runaway car. The flying coal from the wrecked car struck him and mashed his left hand

and cut his head in several places. It is a rigid rule of the mine that all the men must be in their working places at 7 o'clock, when the hoisting begins, and this man suffered through his own carelessness in violation of this rule.

May 7, 1901. William Donley; age, 35; American; colored; cager; married.

This accident occurred at the bottom of the shaft in Mine No. 1 of the McAlester Coal Company, at Hartshorne, Ind. T., at about 2 o'clock p. m. Donley's duties as cager required him to stand at the bottom of shaft to signal the engineer when to hoist and lower the cage. When hoisting coal on this day a piece of coal dropped from the top, and, glancing off from the cage, struck him on the head, causing a slight cut.

May 13, 1901. Clayborne Evitt; miner. John Deskins; miner.

These men were burned by a small explosion of gas in room No. 11, off the second east entry of Mine No. 3 on the lease of the Ola Coal and Mining Company, and being operated by W. R. Bishop, at Ola, Ind. T. This accident happened at about 7 o'clock a. m. These men found their working place marked by the fire boss, indicating the presence of a small quantity of gas, and with instructions for them to brush out the gas fully before going in with a naked light. They brushed out the gas, as they thought, but instead of testing the room with a safety lamp they at once entered without precaution with their naked lights. The gas was ignited, and they were burned on the face and hands.

May 14, 1901. O. Brooks; American; miner. William Frazier; American; miner.

This accident is one exactly similar to the one preceding, and occurred in room No. 2, off the third west entry in Mine No. 3, operated by W. R. Bishop, on the lease of the Ola Coal and Mining Company, at Ola, Ind. T., at about 7 o'clock a. m. On going to their working place to commence work on the morning of this day these men found their room marked by the fire boss as indicating the presence of a small body of gas, and it was their business to brush out the gas before entering the room with naked lamps. They brushed out the room as directed, but without testing with a safety lamp as a preliminary caution they entered with naked lamp, ignited the gas, and were burned somewhat severely on the face, hands, arms, and body.

May 17, 1901. Curt Thompson; age, 22; American; pole holder; single.

This accident occurred at the fourth main south parting in Mine No. 1 of the McAlester Coal Company, at Hartshorne, Ind. T., at about 10 o'clock a. m. Two men operate the electric motors used in this mine for hauling in trips of coal to the foot of the shaft, one known as the motorman and the other as the pole holder. Thompson was the pole holder on the motor on the day this accident occurred. They had just come in with a trip of empty cars, and were preparing to make up a trip of loaded cars to bring out. They made a flying switch with the empty cars and ran the motor on to the track where the loaded cars stood. They stopped the motor close to some loaded cars and then proceeded to change the headlight of the motor from one end to the other in readiness for the outward trip. While doing this Thompson,

who was handing the light to the motorman, permitted his leg to hang down over the bumper. Just at this time some more loaded cars were bumped up against the trip or train to which the motor was about to be attached, and Thompson's leg was caught between the bumpers of the motor and the first loaded car and broken.

May 20, 1901. Joseph Crossetti; age, 24; Italian; shot firer; married.

This accident occurred in room No. 93, off the B entry in Mine No. 11 of the Osage Coal and Mining Company, at Krebs, Ind. T., at about 6.30 o'clock p. m. Crossetti went into the mine on the evening of the accident to perform his duties as shot firer. He had fired shots in a number of rooms, and went into 93 with a safety lamp to examine for gas before firing the shots there. In going up into the room his light went out in his safety lamp and he very carelessly struck a match to relight his safety lamp. The flame from the match ignited the gas, and he was burned, but not seriously, on the face and hands.

May 20, 1901. Joe Cozatick; age, 27; Polander; driver and miner; single.

This accident occurred on the first north entry of Mine No. 1 of the McAlester Coal Company, at Hartshorne, Ind. T., about 4 o'clock p. m. Cozatick was a mule driver, but he was allowed to earn additional wages by digging coal after his day's run was over. While engaged in this latter class of work he was injured about the back by a fall of rock from the roof over his working place. His injuries were occasioned either by his negligence and failing to properly and securely prop the roof of his working place, or by one of those unavoidable accidents wherein the injured man had no means of knowing of the existence of danger, or of preventing its occurrence.

May 21, 1901. Amos Lane; age, 23; American; miner; married.

This accident occurred in room No. 3, off the west mair entry in Mine No. 5 of the McAlester Coal Company, at Alderson, Ind. T., at 8.45 a. m. Lane went to work on the day of the accident after having fired shots in his working place without first examining and securely propping his roof, with the result that he was struck by a fall of rock, crushing him somewhat, but not seriously.

May 27, 1901. George Richards; age, 22; American; miner; married.

This accident occurred in room No. 26, off the second west entry of Slope Mine No. 3, on the lease of the Wilburton Coal and Mining Company, at Wilburton, Ind. T., operated by Paul Gallagher, and it happened at 11.30 o'clock a. m. Richards was instantly killed by a heavy fall of slate from the roof of his working place. After firing two shots in his room, when he next went in he loaded and sent out three cars of coal, and continued this work instead of first timbering his room, which it was his duty to do, and which was especially required after firing shots therein. He was further warned that his roof was unsafe, but he exercised his own judgment, took his chances, and thereby lost his life.

May 28, 1901. Jesús Díaz; age, 20; Mexican; miner; single.

This accident occurred in the sixth west room, Slope Mine No. 3 of the McAlester Coal Company at Alderson, Ind. T., at about 11.40 a. m. This man was at work loading a car of coal under a roof which was

cracked and loosened, but which he thought was not yet ready to fall. He was struck by a piece of draw slate falling from the roof and received a cut over the left eye and a sprained ankle. He could have avoided this injury by propping his roof, as it was his duty to do.

May 28, 1901. Dom Ciotti; age, 34; Italian; miner; married.

This accident occurred in Slope Mine No. 11, operated by P. Magdalena, under contract with the McAlester Coal Company, the mine being located near Hartshorne, Ind. T. In the entry where Ciotti was at work a shot had been fired, and Ciotti was mining off the coal. While doing so he was struck by a fall of rock from the roof and wounded about the head and had his left leg broken. This accident was caused by the injured man's failure to safely prop and secure the roof of his working place.

May 29, 1901. Albert La Belle; age, 22; American; rope rider; single.

This accident occurred on the slope of Mine No. 1, operated by Perry Brothers at Coalgate, Ind. T., at about 9.45 p. m. La Belle on the day of the accident, in performance of his duties as rope rider, brought up a trip of cars loaded with coal, on the rear of which was a water car. He dumped the coal and left the water car standing only about 3 feet from a knuckle and failed to sprag it. He started down the slope with his empty trip, and soon the loaded water car was in some way also started down and ran away, overtaking La Belle's trip, and in the collision crushed him so severely that he died on the next day. He should, of course, have spragged the water car so that it could not have been moved over the knuckle.

May 29, 1901. L. H. Ramey; age, 54; American; miner; married.

This accident occurred in room No. 8, off the third east entry in Mine No. 3 of the McAlester Coal Company, at Gowen, Ind. T., at about 5 o'clock p. m. After having fired a shot in his room Ramey was going back to fire a second shot, when a piece of rock, known as draw slate, fell from the roof and bruised his left shoulder and back. Ramey had no warning of this danger and was unable to take any precautions against it. This was simply an unavoidable accident.

June 8, 1901. William Rankey; age, 23; Slav; driver; single.

This accident occurred on the second west entry of Mine No. 2 of the Wilburton Coal and Mining Company, at Wilburton, Ind. T., at about 2.30 p. m. Rankey was riding a trip along the entry when his mule commenced kicking. In getting off the car he slipped and fell and the mule started up, pulling one car over Rankey's foot, slightly mashing and bruising it.

June 10, 1901. Frank Hobson; age, 38; American; colored; miner; single. Hugh Thomas; age, 20; American; miner; single. Dave Gonzales; age, 30; Mexican; miner; single.

These three men were injured while in the south cage descending the shaft of Mine No. 5 of the McAlester Coal Company, at Alderson, Ind. T., about 6.30 a. m. These three men, with four others, were descending the shaft in the cage on the morning of the 10th, and when within about 25 feet of the bottom the cage first stopped and then dropped rapidly to the bottom, and three of the men on board the cage

were injured. Hobson had his left leg broken; Thomas was bruised and injured along his right side and right leg, and Gonzales's right knee was sprained, the others being practically unhurt. While one cage is descending the other is ascending, and it is customary for the engineer to keep the engine supplied with steam until the two cages meet about midway down the shaft, when the steam is shut off and the momentum acquired carries the cages to the top and bottom, respectively. In this case, however, the cage stopped some feet distant from the bottom, and when the engineer gave the engine more steam he no doubt gave it a little too much, thus dropping the cage suddenly the remaining distance.

June 11, 1901. Dominic Sessi; age, 24; Polander; miner; single.

This accident happened in room No. 54 of Slope Mine No. 15 of the McAlester Coal Company, at Alderson, Ind. T., at about 10 o'clock a. m. Sessi was injured by a fall of rock from the roof of his working place, which resulted in a cut over his left eye and bruises on the left side of his head and left hand. The piece of rock which fell came from close to the face, and had been undermined by Sessi's own work. He had failed to prop the roof after undermining it and thus the accident occurred.

June 13, 1901. Samuel Patterson; age, 26; American; colored; miner; single.

This accident occurred at the bottom of the shaft of Mine No. 4 of the Southwestern Coal and Improvement Company, at Coalgate, Ind. T., at about 8.15 a. m. On the day of the accident Patterson was working as cager at the bottom of the shaft. He was standing on the south side of the shaft when a car started to run toward the cage seat from the north side. The other cager stationed on the north side of the shaft stopped the car, but Patterson started to run across between the guides to assist him. When he started across the other cage was descending—which he, of course, knew—and was within a short distance from the bottom. As he went under he was caught by the descending cage and crushed and bruised about the face, hips, and body somewhat severely.

June 14, 1901. Hugh Thomas; age, 20; American; miner; single. Roy Thomas; age, 18; American; miner; single.

These two men were both somewhat severely burned about the arms, hands, and upper part of the body while working in a room just off the main west entry of Mine No. 5 of the McAlester Coal Company, at Alderson, Ind. T., at about 2.30 p. m.

June 15, 1901. John Henry Hosten; age, 30; American; miner; married.

This accident occurred in room No. 11 of the second top entry west of Mine No. 2 of the Southwestern Coal and Improvement Company, at Coalgate, Ind. T., at about 8.30 a. m. This man was very severely crushed by a heavy fall of rock from the roof of his working place and died within about two hours after the accident. The fall occurred because of a plot slip in the roof which there was no means of discovering beforehand, and I know of nothing that could have been done to foresee or prevent this accident.

June 19, 1901. W. H. Garrett; age, 19; American; coal dumper; single.

This accident occurred at Mine No. 7 of the Atoka Coal and Mining Company, at Lehigh, Ind. T., at about 7 o'clock a. m. Garrett assisted another workman to dump a loaded trip car which had been left on the tippie when the men ceased work the night before. He then pushed the empty car to the top of the shaft, and without noticing that the cage on that side was not at the top, pushed the car over the edge of the landing and both the car and man dropped to the bottom of the shaft, resulting in Garrett's instant death.

June 20, 1901. George Cook; age, 16; Italian; outside laborer; single.

This accident occurred at Mine No. 3 of the McAlester Coal Company at Gowen, Ind. T., at about 8 o'clock a. m. At this mine the weigh room is on a platform about 16 feet above the ground. Some very heavy test weights, about 50 pounds each, had been used on the scales and were being taken away. The dumpers were throwing the weights on to a pile of slack below. Cook approached the weigh house and started under the platform to get a drink of water, but was warned that they were throwing the weights down and went around instead of under the platform. On his return, however, he walked right back under the platform where he could not be seen by the men above, and just as he came out into view one of the weights was thrown down. It struck him upon the head and fractured his skull.

June 21, 1901. W. F. Keith; age, 30; American; miner; married.

This accident occurred in Mine No. 9 of the Milby and Dow Coal Company at Dow, Ind. T., at about 4 o'clock p. m. Keith was working in a working place in this mine which generally made a little gas. On this occasion he had been out of the room for some little time, resting, and when he returned, instead of first testing with his safety lamp, as he should have done, he walked right in to the face with his naked lamp, igniting the gas and being burned somewhat severely.

June 24, 1901. Jim Ryan; age, 35; English; miner; single.

This accident occurred in room No. 15, off the fourth west entry in Mine No. 3 of the Wilburton Coal and Mining Company at Wilburton, Ind. T. This man was loading a car of coal in his working place when a piece of draw slate fell from the roof and struck his hand, which was on top of the car. His hand was badly mashed. The slate fell without warning, and there was nothing to indicate its dangerous character.

June 28, 1901. D. Ford; age, 22; American; rope rider; single.

This accident occurred along the main north motor line of Mine No. 1 of the McAlester Coal Company at Hartshorne, Ind. T., at about 11 o'clock a. m. Ford, with two other men, was engaged in cleaning up a fall of rock on the motor line of the main north entry. A large piece of rock was resting partially on the ground and partially against the rib, and while these men were engaged in breaking it up a portion of the rock suddenly collapsed and fell upon Ford, fracturing two of his ribs.

June 29, 1901. James Bunch; age, 27; American; miner; married.

This accident occurred on the slope in Mine No. 5 of the McAlester Coal Company at Alderson, Ind. T., about 4.15 o'clock p. m. On this day Bunch and another man each got into an empty car of a trip ascending the slope for the purpose of taking some tools from the bot-

tom up to the tenth west entry. It is the rule in this mine that the men must not ride on the trips except when regular trips are made at the commencement and closing of work for the purpose of lowering and hoisting men, but this rule is one which is often violated, and one which is very easily violated without the knowledge of the rope rider or of anyone else. James Bunch was in the rear car going up and Oscar Bunch in the next car above. At a point just above the tenth west entry the two cars became detached from the rest of the trip and ran rapidly down to the bottom of the slope, about 300 feet. The two men stayed in the cars until they reached the bottom. James Bunch, in the last car, was so severely injured that he died, while the man in the car above him escaped without injury.

Following is the act of Congress for the protection of the lives of miners in the Territories, approved March 3, 1891:

[PUBLIC NO. 165.]

An act for the protection of the lives of miners in the Territories.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in each organized and unorganized Territory of the United States wherein are located coal mines, the aggregate annual output of which shall be in excess of one thousand tons per annum, the President shall appoint a mine inspector, who shall hold office until his successor is appointed and qualified. Such inspector shall, before entering upon the discharge of his duties, give bond to the United States in the sum of two thousand dollars, conditioned for the faithful discharge of his duties.

SEC. 2. That no person shall be eligible for appointment as mine inspector under section one of this act who is not either a practical miner or mining engineer and who has not been a resident for at least six months in the Territory for which he shall be appointed; and no person who shall act as land agent, manager, or agent of any mine, or as mining engineer, or be interested in operating any mine in such Territory shall be at the same time an inspector under the provisions of this act.

SEC. 3. That it shall be the duty of the mine inspector provided for in this act to make careful and thorough inspection of each coal mine operated in such Territory, and to report at least annually upon the condition of each coal mine in said Territory with reference to the appliances for the safety of the miners, the number of air or ventilating shafts, the number of shafts or slopes for ingress or egress, the character and condition of the machinery for ventilating such mines, and the quantity of air supplied to the same. Such reports shall be made to the governor of the Territory in which such mines are located and a duplicate thereof forwarded to the Secretary of the Interior, and in the case of an unorganized Territory directly to the Secretary of the Interior.

SEC. 4. That in case the said mine inspector shall report that any coal mine is not properly constructed or not furnished with reasonable and proper machinery and appliances for the safety of the miners and other employees it shall be the duty of the governor of such organized Territory, it shall be the duty of the Secretary of the Interior, to give notice to the owners or managers of said coal mine that the said mine is unsafe and notifying them in what particular the same is unsafe, and requiring them to furnish or provide such additional machinery, slopes, entries, means of escape, ventilation, or other appliances necessary to the safety of the miners and other employees within a period to be in said notice named, and if the same be not furnished as required in such notice it shall be unlawful after the time fixed in such notice for the said owners or managers to operate said mine.

SEC. 5. That in all coal mines in the Territories of the United States the owners or managers shall provide at least two shafts, slopes, or other outlets, separated by natural strata of not less than one hundred and fifty feet in breadth, by which shafts, slopes, or outlets distinct means of ingress and egress shall always be available to the persons employed in said mine. And in case of the failure of any coal mine to be so provided it shall be the duty of the mine inspector to make report of such fact, and thereupon notice shall issue, as provided in section four of this act, and with the same force and effect.

SEC. 6. That the owners or managers of every coal mine at a depth of one hundred feet or more shall provide an adequate amount of ventilation of not less than fifty-five cubic feet of pure air per second, or thirty-three hundred cubic feet per minute, for every fifty men at work in said mine, and in like proportion for a greater number,

which air shall by proper appliances or machinery be forced through such mine to the face of each and every working place, so as to dilute and render harmless and expell therefrom the noxious or poisonous gases; and all workings shall be kept clear of standing gas.

SEC. 7. That any mine owner or manager who shall continue to operate a mine after failure to comply with the requirements of this act and after the expiration of the period named in the notice provided for in section four of this act, shall be deemed guilty of a misdemeanor, and shall be fined not to exceed five hundred dollars.

SEC. 8. That in no case shall a furnace shaft be used or for the purposes of this act be deemed an escape shaft.

SEC. 9. That escape shafts shall be constructed in compliance with the requirements of this act within six months from the date of the passage hereof, unless the time shall be extended by the mine inspector, and in no case shall said time be extended to exceed one year from the passage of this act.

SEC. 10. That a metal speaking tube from the top to the bottom of the shaft or slope shall be provided in all cases, so that conversation may be carried on through the same.

SEC. 11. That an approved safety catch shall be provided and sufficient cover overhead on every carriage used in lowering or hoisting persons. And the mine inspectors shall examine and pass upon the adequacy and safety of all such hoisting apparatus.

SEC. 12. That no child under twelve years of age shall be employed in the underground workings of any mine. And no father or other person shall misrepresent the age of anybody so employed. Any person guilty of violating the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not to exceed one hundred dollars.

SEC. 13. That only experienced and competent and sober men shall be placed in charge of hoisting apparatus or engines. And the maximum number of persons who may ascend or descend upon any cage or hoisting apparatus shall be determined by the mine inspector.

SEC. 14. That it shall be lawful for any inspector to enter and inspect any coal mine in his district and the work and machinery belonging thereto at all reasonable times, but so as not to impede or obstruct the working of the mine; and to make inquiry into the state of the mine, works, and machinery, and the ventilation and mode of lighting the same, and into all matters and things connected with or relating to the safety of the persons employed in or about the same, and especially to make inquiry whether the provisions of this act are complied with; and the owner or agent is hereby required to furnish means necessary for such entry, inspection, examination and inquiry, of which the said inspector shall make an entry in the record in his office, noting the time and material circumstances of the inspection.

SEC. 15. That in all cases of fatal accident a full report thereof shall be made by the mine owner or manager to the mine inspector, said report to be in writing and made within ten days after such death shall have occurred.

SEC. 16. That as a cumulative remedy, in case of the failure of any owner or manager of any mine to comply with the requirements contained in the notice of the governor of such Territory or the Secretary of the Interior, given in pursuance of this act, any court of competent jurisdiction, or the judge of such court in vacation, may, on the application of the mine inspector in the name of the United States and supported by the recommendation of the governor of said Territory or of the Secretary of the Interior, issue an injunction restraining the further operation of such mine until such requirements are complied with, and in order to obtain such injunction no bond shall be required.

SEC. 17. That wherever the term "owner or manager" is used in this act the same shall include lessees or other persons controlling the operation of any mine. And in case of the violation of the provisions of this act by any corporation the managing officers and superintendents, and other managing agents of such corporation, shall be personally liable and shall be punished as provided in act for owners and managers.

SEC. 18. That the mine inspectors provided for in this act shall each receive a salary of two thousand per annum and their actual traveling expenses when engaged in their duties.

SEC. 19. That whenever any organized Territory shall make or has made provision by law for the safe operation of mines within such Territory, and the governor of such Territory shall certify said fact with a copy of the said law to the Secretary of the Interior, then and thereafter the provisions of this act shall no longer be enforced in such organized Territory, but in lieu thereof the statute of such Territory shall be operative in lieu of this act.

Approved March 3, 1891.



SOUTH VIEW OF STEEL TIPPLE, OWNED BY THE RATON COAL AND COKE COMPANY, RATON, N. MEX.



Report of Mine Inspector of New Mexico, 1901.



NORTH VIEW, SHOWING STEEL TIPPLE AND COAL WASHER BELONGING TO THE RATON COAL AND COKE COMPANY, RATON, N. MEX.

U.S. GEOLOGICAL SURVEY

Report of Mine Inspector of New Mexico, 1901.



VIEW SHOWING COKE OVENS, AT GARDINER, N. MEX., WHICH ARE OWNED BY THE RATON COAL AND COKE COMPANY.

ANNUAL REPORT
OF THE
MINE INSPECTOR FOR THE TERRITORY OF
NEW MEXICO.

SILVER CITY, N. MEX., *August 31, 1901.*

SIR: In compliance with section 3 of an act of Congress approved March 3, 1891, entitled "An act for the protection of the lives of miners in the Territories," I beg leave to submit herewith the ninth annual report of this office, covering the fiscal year ended June 30, 1901.

JO E. SHERIDAN,

United States Mine Inspector for Territory of New Mexico.

HON. ETHAN ALLEN HITCHCOCK,

Secretary of the Interior, Washington, D. C.

COLFAX COUNTY.

Colfax County vies with McKinley County for the honor of the greatest area, number of veins, and capacity for production of coal. These two counties head the list as coal-producing counties of the Territory of New Mexico. But which of the counties will take precedence can only be told after a careful geological survey.

Such a survey the whole Territory is now suffering from need of, both in the coal measures and the metalliferous mining districts.

The principal mines in operation during the past year in Colfax County are located in the vicinity of the town of Gardiner, about 4½ miles from Raton, N. Mex. The mines are owned and operated by the Raton Coal and Coke Company; J. Van Houten, general manager; J. A. Wiggs, jr., superintendent; M. M. Walsh, assistant superintendent. Two veins of commercial value are known to exist in these coal measures. The veins are about 600 feet apart. The upper vein, known as the "Tin Pan" vein, is about 4 feet in thickness. The lower vein, known as the Blossburg vein, averages from 5 to 8 feet in thickness. The lower or Blossburg vein is the only one worked through the properties of the Raton Coal and Coke Company. The mines furnish an excellent quality of bituminous coal. The company controls 10,000 acres of the best coal-bearing lands in the Territory. The principal producing mines of the company during the past fiscal year were known as Blossburg mines Nos. 5, 6, 8, and 9. Of these Nos. 6 and 9 have suspended operation on account of the seam being broken by rolls and faults. The large area opened in these mines has been worked out and the pillars drawn. The total production of coal from these mines during the past year has been 333,432.84 tons. The amount used in operating the mine, 7,186.10 tons. Net product, 326,246.74 tons. Estimated value of output at the mine, \$1 per ton, \$326,246.74. The coal is sold to the Atchison, Topeka and Sante Fe Railroad at Raton, N. Mex.; in El Paso, Tex.; Mexican Central Railroad, and Southern Pacific Railroad. Average number of men employed outside, 23; average number of boys employed outside, 12; average number of men employed under-

ground, 220; average number of boys employed underground, 12. All nationalities. The mines were operated about three hundred days in the past year, every day except Sundays and holidays.

The total product shows a decrease of 57,175 tons as compared with the preceding fiscal year. This decrease was caused by the broken condition of the ground in the mines operated. New mines, Nos. 1, 2, and 3, are being opened. These mines are hereafter described as the Dutchman Canyon, Dillon Canyon, and Wheatcroft Canyon mines. Old Blossburg No. 4 mine is also being reopened. These mines will give access to several millions of tons of coal, and the probability is that the production of Colfax County will be largely increased through these mines during the next two years and for many years thereafter.

The company also operated 76 beehive coke ovens of standard size, 13 feet in diameter. An economical device in connection with these ovens is the utilization of the surplus heat, liberated in the coking process, for generating steam. This is done by means of a hot-air flue, located between the ovens, which are double-row batteries. The waste heat is conducted by means of this flue to the boiler plant, midway between the two batteries of ovens, and generates a large proportion of the steam power required for the operation of the electric plant. The product of these ovens for the past year was 21,361.20 tons of coke, of an estimated value of \$2.50 per ton at the ovens.

The coal from which this coke was produced came from Nos. 5 and 6 mines.

A first-class washing plant, having all the most modern and economical appliances, with a capacity for washing 1,000 tons of coal per day, is a part of the equipment at the mine.

The company has 18 coal-cutting machines, with a capacity of 250 tons each per day. These machines when in use are operated by electricity. None of these machines are in use at present in the old mines, on account of the roly condition of the coal, and development is not sufficiently advanced in the new openings to permit of their use.

The mines are ventilated by Guibal and electric fans.

The motive power is supplied by three steam engines, two of 175 horsepower each and one of 200 horsepower, which in turn operate three electric generators which furnish 500 horsepower for direct use, the wires carrying a 500-volt current. The loaded cars are gathered from the rooms by the use of mules and thus hauled to the main entry, where trains of 40 to 100 mine cars are made up and hauled by electric motor to the tippie. Three electric motors have been heretofore employed, but it is probable a greater number may be employed within a year. The mines have been operated by slope, double-entry, room, and pillar systems.

The town of Gardiner, N. Mex., is a typical coal-mining town. Here are domiciled all persons employed in and about the Raton Coal and Coke Company's mines. The village consists of over 250 dwellings, together with office buildings, boarding house, hospital, and schoolhouse. A large brick store, one and one-half stories, 75 by 120 feet, which is well supplied with merchandise, is also owned by the company.

RECORD OF INSPECTION.

October 8, 1900.—Inspected No. 5 mine; measured air intake; found 10,080 cubic feet per minute entering the mine. Fifty-four men employed underground. Found the mine well ventilated, the air being well distributed; no gas. The miners were exceedingly careless about placing necessary props and timbers. Instructed that work be suspended in three openings where pillars were being drawn until the ground was properly timbered.

November 22, 1900.—Inspected No. 5 mine. Measured air intake; found 16,800 cubic feet per minute entering mine; found air well distributed and an abundance of air traveling near all working faces. Seventy-eight men employed underground. Found imminent danger of falling roof in several openings; ordered additional timbers placed and saw them put in.

January 22, 1901.—Inspected Blossburg mine No. 5. Air intake 18,600 cubic feet per minute; air well distributed to working places. Eighty men employed, all drawing pillars. Mine generally well timbered; no gas.

January 24, 1901.—Again visited Blossburg mine No. 5. Traversed main diagonal 2,000 feet to where pillars were being drawn. Found three exceedingly dangerous places. Instructed that two of the openings be well timbered and that the other be abandoned as risk of life was too great. Instructions carried into effect. Found some CO₂ coming in from abandoned workings. Instructed that brattice be put up and air current directed to dispel the black damp.

March 15 and 16, 1901.—Inspected Blossburg mine No. 5. Air intake 28,800 cubic feet per minute; air not well distributed to working places; 46 men underground on day shift, 44 on night shift. All miners drawing pillars. Found ground very dangerous and men very careless about timbering. Instructed that additional timbers be set in 10 openings. Found ventilation weak in some working places, with indications of CO₂. Instructed that ventilation be improved by better distribution of air current. No CH₄.

May 21, 1901.—Inspected Blossburg mine No. 5. Air intake 36,000 cubic feet per minute, 30 men employed underground. Men very careless about timbering. Found CO₂ coming into workings, in rear, from caved-in ground. Instructed that crosscut be driven and canvas put up to conduct air to remote working, where CO₂ is apparent. No CH₄.

BLOSSBURG MINE NO. 6.

RECORD OF INSPECTION.

October 9, 1900.—Inspected Blossburg mine No. 6. This mine connects with Blossburg mine No. 5, underground, and in fact both mines Nos. 5 and 6 are portions of the old workings of Blossburg mine No. 4, which was operated through the old opening at the old camp of Blossburg, about 1½ miles distant. The work done in these two mines during the past year has been drawing pillars from the old workings. No new entries have been run nor new ground developed.

Measured air intakes; found 15,240 cubic feet of air per minute entering mine; air well distributed; ventilation very good; no gas; 50 men employed underground. Miners were indifferent to danger and lax about timbering. Gave strict orders, through Superintendent M. M. Walsh, who was present, that necessary props and timbers must be placed in the several dangerous openings or work suspended.

November 23, 1900.—Inspected mine No. 6. Measured air intake; found 10,440 cubic feet per minute entering mine. Air well distributed and circulation of air good at all working faces; no gas; 78 miners employed underground. Mine in dangerous condition at many points for lack of timbers. Miners reckless of danger and reluctant to obey orders of superintendent and pit boss to properly timber ground. Instructed that additional timbers be put in several openings.

January 23, 1901.—Inspected Blossburg mine No. 6. Air intake 15,600 cubic feet per minute; air well distributed. Miners very careless about timbering. No gas. Sixty men employed underground.

March 18, 1901.—Inspected Blossburg mine No. 6. Air intake 14,400 cubic feet per minute; air well distributed; 12 miners underground. Ground dangerous and needing very careful attention, which I instructed Superintendent M. M. Walsh to give to this mine and No. 5 also. This mine was abandoned soon after this visit of inspection. Reason given: Rolly ground; coal seams broken up.

October 10, 1900.—Inspected Blossburg mine No. 8. Measured air intake in No. 1 main entry, known as drum entry. Found 22,080 cubic feet of air per minute entering mine; 20 men employed underground. Found room No. 5 right of main drum entry to be in an exceedingly dangerous condition. Instructed that work be suspended in the room until properly timbered.

Went into dip entry No. 8 mine. Just at entrance met 6 men carrying out the body of Charles Schott who had just been crushed to death under a falling rock from roof at face of entry. Applied usual tests to discover if life were extinct, found no sign of life. Went into face of entry where Schott was killed, measured rock which fell upon him, 6 by 4 by 1 foot, weight about 2 tons, cause of accident, carelessness. Heard his partner had fired a hole at noon, the shot knocked out the timber from under slab of rock in roof. He did not take the precaution of sounding roof, nor put the timber back in place but proceeded to shovel coal into the car. His partner, Winsent Foster, standing near by out of danger. (See copy of accident report.) Measured air intake, found 11,960 cubic feet of air per minute entering mine; 24 men at work; air well distributed; no gas. Found several dangerous rooms in mine by reason of lack of timbers. Gave necessary instructions to make same safe.

November 24, 1900.—Inspected Blossburg mine No. 8. Measured air intake in dip entry; found 12,220 cubic feet per minute entering mine; found air well distributed in mine; no gas; circulation at working faces good. Thirty miners employed. No. 1 drum entry to same mine; air intake 20,420 cubic feet per minute. This entry taps the old workings of Blossburg No. 4 from which I found CO₂ escaping. Instructed that proper methods be employed to expel same from workings in operations.

January 24, 1901.—Inspected Blossburg mine No. 8. Dip entry air intake 12,600 cubic feet per minute, air well distributed, 25 miners employed. Drum entry air

intake 17,600 cubic feet per minute; air well distributed; 20 miners employed, mine well timbered, no gas.

March 20, 1901.—Inspected Blossburg mine No. 8. Air intake, drum entry, 15,440 cubic feet per minute; 25 men underground, air well distributed. Great carelessness in timbering. Miners claimed they were not provided with timbers. Instructed pit boss, W. B. McKinney, to have timbers sent into all openings where needed. He immediately ordered the driver to take timbers into all openings where needed and to keep the men well supplied. Traversed dip entry 2,050 feet to junction with Old Blossburg No. 4 mine. No. 4 is an old abandoned mine of considerable extent and generated CH_4 when in operation. As a new and powerful fan will soon be put at work ventilating the old workings I gave instructions that extra precaution be taken when fan is started that it does not draw CH_4 from old workings and create a new danger.

May 22 and 23, 1901.—Inspected Blossburg mine No. 8. Air intake, main entry, 19,200 cubic feet per minute, 16 men employed underground drawing pillars. Pillars very light and roof very strong; sandstone in most places, such as is liable to come down in large area. Found miners careless as to setting sufficient timber to give warning. Instructed that more timbers be set.

Air intake at connection with Old Blossburg No. 4 main entry, 12,000 cubic feet per minute, 20 men employed on each shift. Traversed Old Blossburg No. 4 main entry 1,500 feet beyond junction. Made safety lamp sets for CH_4 to a distance of 50 feet from present workings in old gobs. Found no CH_4 , but strong evidence of CO_2 . Instructed that ventilation be kept well up to working faces. Mine well timbered, ventilation strong.

October 11, 1900.—Inspected Blossburg mine No. 9. Air intake, No. 2 entry 8,100 cubic feet per minute, air well distributed, 35 men in mine. Air intake No. 3 entry 9,120 cubic feet per minute, air well distributed, 25 men in this part of mine. Mine well timbered, except in roof of No. 2 main entry, where there were several dangerous slabs of loose rock. Instructed that loose rock be removed or made safe with timbers. No gas.

November 26, 1900.—Inspected Blossburg mine No. 9. Air intake, No. 3 main entry, 8,265 cubic feet per minute, air well distributed, 12 men employed underground. Air intake, No. 2 main entry, 9,075 cubic feet per minute, air well distributed, 9 men in this part of mine. Mine well timbered; no gas.

January 25, 1901.—Inspected Blossburg mine No. 9. Air intake, No. 2 main entry, 5,000 cubic feet per minute, air well distributed to working places; 4 miners employed drawing pillars. Ground dangerous; instructed that only experienced miners be employed in this ground. Air intake, No. 3 main entry, 10,000 cubic feet per minute, air well distributed, 13 miners at work. Mine safely timbered; no gas.

March 21, 1901.—Inspected Blossburg mine No. 9. Air intake, 45,000 cubic feet per minute, No. 1 and No. 2 entries, 4 men on this air. Air intake, No. 3 entry, 6,265 cubic feet per minute, air well distributed, 11 miners on this air. Mine well timbered; no gas.

This mine was abandoned shortly after this visit of inspection. The reason of abandonment was rolls and dikes rendered it expensive to work.

BLOSSBURG MINE NO. 4.

This mine was worked for several years by the Maxwell Land Grant Company, upon whose property it was located, and also by the Atchison, Topeka and Santa Fe Railroad. Operations upon the mine were suspended some four years ago, about the time of the labor troubles at the old town of Blossburg. The old workings are quite extensive, the main entry being about 8,000 feet, or more than a mile and a half in length, with several miles of lateral openings therefrom.

The Blossburg mines Nos. 5 and 6, descriptions of which appear elsewhere in this report, are located in the southern section of the old workings of Blossburg No. 4 mine.

The mine is now being reopened through the old main entry of No. 4 mine, and also through a slope 2,050 feet in length leading through No. 8 mine and making a junction with No. 4 main entry about 3,000 feet from its mouth.

RECORD OF INSPECTION.

January 23, 1901.—Inspected Blossburg mine No. 4. Found considerable CO_2 in all lateral openings off main entry. This will be remedied when fan is started. Then danger from CH_4 from old gobs when CO_2 is exhausted. Instructed that fan

be run several days and safety lamps used until certain that all danger of fire damp from old gobs is obviated by perfect ventilation.

March 19, 1901.—Inspected Blossburg mine No. 4. Gave necessary instruction as to ventilation. Found mine well timbered except mouth of new east entry.

May 23, 1901.—Inspected Blossburg mine No. 4 in connection with inspection of Blossburg mine No. 8. See record inspection Blossburg mine No. 8 this date.

BLOSSBURG MINE NO. 3, OR DUTCHMAN CANYON MINE.

[Raton Coal and Coke Company, owners and operators.]

This is a new mine being opened in Dutchman Canyon on the south, Wheatcroft Canyon on the east, and Dillon Canyon on the north. A new 3-entry system will be put in practice in this mine, a sketch of which is hereafter given. When fully opened for operation this mine will probably be one of the greatest coal producers of the Territory. The field to be opened by this mine will have an area of 3 square miles. A conservative estimate of the coal in this area would be fully 9,000,000 tons. The coal vein will average about 6 feet in thickness and at date of last inspection gave promise of being very regular and free from rolls, faults, and dikes.

The mine is situated about 6 miles northwesterly from Raton, N. Mex. The branch of the Atchison, Topeka and Santa Fe Railroad from Dillon, N. Mex., to Gardiner, N. Mex., is being extended from Gardiner to Dutchman and Dillon canyons to facilitate the operation of this mine and Blossburg No. 1 mine in Dillon Canyon.

RECORD OF INSPECTION.

May 24, 1901.—Inspected Dutchman Canyon coal mine. Middle entry, 225 feet; right back entry, 150 feet; left entry, 40 feet. Air intake, 5,000 cubic feet per minute, well distributed; 20 men in three entries. Ventilated by electric fan.

This mine has been developed to much greater extent since the United States mine inspector's last visit. Extensive improvements are being made and electric machinery of the latest and most approved design will be installed upon the mine, also a tippie combining the most economical improvements to date.

May 25, 1901.—Inspected lateral openings on east and west side of Wheatcroft Canyon, being driven to develop Dutchman Canyon mine.

BLOSSBURG MINE NO. 1.

[Raton Coal and Coke Company, owners and operators.]

This mine, now being reopened, is one of the oldest in the Territory. It was operated in 1880, twenty-one years ago, by the Atchison, Topeka and Santa Fe Railroad. It is situated on the north side of Dillon Canyon, about 6½ miles from Raton, N. Mex. When visited by the United States mine inspector, on May 25, 1901, the old main entry had been cleaned out and retimbered a distance of 1,000 feet.

Prices paid for labor, mining coal, etc., by the Raton Coal and Coke Company on all mines at Gardiner and Blossburg, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein 60-72 inches.

Mining coal, per ton of 2,400 pounds, mine run, 50 cents per ton.

Driving main entry, per yard, \$1.75 and 50 cents per ton.

Driving back entry, per yard, \$1.75 and 50 cents per ton.

Driving main slope when in natural coal, per yard, \$1.75.

Wages paid:

Pit bosses, per day	\$3.00
Fire bosses, per day	2.50
Shot firers, per day	2.50
Machine men on coal-cutting machines, per day	3.00
Helpers on coal-cutting machines, per day	2.00
Track layers, per day	2.50
Company timbermen, per day	2.50
General company men, per month	60.00-75.00
Single mule drivers, per day	2.50
Car couplers, per day	1.50
Boys attending to doors, per day	1.00

Wages paid—Continued.

Stable boss, per month	\$75. 00
Electricians, per month	75. 00
Linemen, per month	65. 00
Motormen, per month	75. 00
Engineers, per month	75. 00
Boilermen, per month	60. 00
Weighmen, per month	75. 00
Tippelmen, per month	65. 00
Blacksmiths, per day	3. 00
Blacksmiths' helpers, per day	2. 00
Carpenters, per day	2. 50

Prices of powder and supplies for miners at the Raton Coal and Coke Company's mines.

Powder, per keg	\$2. 50
Lamp oil, per gallon .....	. 44
Lamp cotton (5 balls), per pound .....	. 16
Squibs, per 100 .....	. 10½
Deductions:	
Doctors, per month	1. 00
Hospital, per month	1. 00
House rent, 2 rooms, per month	3. 00
House rent, 3 rooms, per month	4. 00
House rent, 4 rooms, per month	6. 00

CLIMAX AND SUGARITE MINES.

[Raton Fuel Company, owners and operators; A. L. Hobbs, secretary, treasurer, and manager.]

The Climax mine has heretofore been known in the reports of the United States mine inspector as Smith mine No. 2. The present owners and operators call it the Climax. This mine is located about 1½ miles north of the town of Raton, Colfax County, N. Mex. The product of this mine is hauled in wagons to the town of Raton, N. Mex., and there sold to the domestic trade. The mine is ventilated by a furnace. The vein is 4 feet 6 inches in thickness and produces a good quality of bituminous coal. The product for the fiscal year ending June 30, 1901, was 3,000 tons; estimated value at mine, \$5,000. The mine is opened by a drift about 700 feet in length. System of mining, double entry, room, and pillar; number of men employed, 6; number of days mine in operation during year, two hundred and fifty

RECORD OF INSPECTION.

October 12, 1900.—Inspected Climax mine. Air intake, 1,950 cubic feet per minute. Twelve men underground. Air well distributed to working faces. Found that back entry or air course is the only means of egress from the mine except main entry, and that the back entry connects with furnace opening to the surface. Instructed that connection be made with the surface immediately through an entry 25 feet distant from furnace shaft. No gas. Mine well timbered.

January 26, 1901.—Inspected Climax mine. Found mine well timbered. No gas; ventilation weak. Instructed that ventilation be improved by necessary crosscut and connection with back air course.

March 23, 1901.—Inspected Climax mine. Air intake, 2,400 cubic feet per minute. Eleven miners employed. Instructed that additional timbers be placed where necessary along first left entry and in room at end of entry. No gas; ventilation weak, but air good at working faces; mine generally well timbered.

SUGARITE MINE.

The Sugarite mine was formerly known as the Latamore mine. The mine is situated about 7 miles east of Raton, N. Mex., near the creek from which it takes its name of Sugarite. It was reopened by the present owners and operators in April, this year. A drift has been run about 400 feet upon the vein; thickness of vein, 5 feet. The product is an excellent quality of bituminous coal. But little coal had been produced during the fiscal year ending June 30, 1901, the mine being put in shape for production this fall and winter. The coal is marketed at Raton, Las Vegas,

and Albuquerque. It is hauled in wagons to Raton, from whence it is shipped via Atchison, Topeka and Santa Fe Railroad to other points named.

RECORD OF INSPECTION.

May 27, 1901.—Inspected Sugarite mine. Ventilation weak. Three men employed in mine. A. Hellas, contractor in charge, informed me that he would use all diligence in driving an entry to the surface in a side gulch, which would furnish better ventilation and comply with section 5, United States coal-mining law.

Prices paid for labor, mining coal, etc., by the Raton Fuel Company on the Climax and Sugarite mines at Raton, N. Mex., during the fiscal year ending June 30, 1901.

- Thickness of Climax vein, 4 feet 6 inches.
- Mining coal, per ton of 2,400 pounds mine run, 70 cents.
- Thickness of Sugarite vein, 5 feet.
- Mining coal, per ton of 2,400 pounds mine run, 60 cents.
- Driving main entry, per yard, \$3.
- Driving back entry, per yard, \$1.50.
- Narrow work, per yard, 75 cents.
- Driving crosscuts, per yard, 75 cents.
- Turning rooms, \$2.
- General company men, per day, \$2.50.
- Company men underground, per day, \$2.50.
- Single mule drivers, per day, \$2.50.

Prices of powder and supplies for miners at the Climax mine.

Powder.....	per keg..	\$2.50
Lamp oil.....	per gallon..	.70
Lamp cotton.....	per ball..	.05
Squibs.....	per box..	.25

LLEWELLYN MINE.

[Thomas Llewellyn, owner and operator.]

This mine is located about 12 miles northeast from the town of Raton, Colfax County, N. Mex. It is situated a few hundred feet below the lavasheet which constitutes the top of Johnson mesa. The coal production is bituminous. Thickness of vein, 7½ feet. Opened by a drift 450 feet in length. Number of tons produced during fiscal year ending June 30, 1901, 2,500. Estimated value at mine, \$2,500. Coal hauled in wagons and sold for domestic purposes to residents of the towns of Raton and Mora, N. Mex. One man and one boy employed in the mine. Mine operated three hundred days during fiscal year.

RECORD OF INSPECTION.

January 21, 1901.—Inspected Llewellyn mine. Natural ventilation through air shaft. Air current weak, but good air at working faces. Two miners employed. Main drift 450 feet in length. Found only one opening for egress from mine in case of accident. Instructed owner to make connection with air shaft to afford another opening for escape as required by law. No gas; mine fairly well timbered.

March 22, 1901.—Inspected Llewellyn mine. Found that owner had only partially complied with instruction of January 21, 1901, to connect with air shaft. Instructed that better connection be made. Two men employed. Ventilation fair; mine passably well timbered; no gas.

DAWSON MINE.

This mine, situated about 15 miles west from Maxwell City, a station on the Atchison, Topeka and Santa Fe Railroad, has been operated only upon a small scale under the former ownership and management of J. B. Dawson. Quite recently the managers of the New Mexico Fuel Company obtained control of the property, and preparations are now being made for extensive development of the mine. The

property consists about 20,000 acres of the most valuable coal land in the Territory. A vein of excellent bituminous coal, 9 feet in thickness, was opened by a drift to a depth of 300 feet by the former owners. The present management has thoroughly prospected the ground by boring and has found the coal seam to be of a uniform thickness and good quality. As the property was only operated intermittently to supply the limited local demand I did not consider it necessary to visit the property. The output for the year was about 300 tons.

LINCOLN COUNTY.

Lincoln County ranks as third among the coal-producing counties of New Mexico for the fiscal year ending June 30, 1901. The principal mines of the county are located at Capitan, N. Mex., 168 miles from El Paso, Tex. Capitan is the terminus of the El Paso and Northeastern Railroad. This railroad is now building from Carizoso, 25 miles from Capitan, to connect with the Chicago and Rock Island Railroad. The great bulk of the coal produced in Lincoln County comes from the mines owned by the New Mexico Railway and Coal Company, whose address is 76 Williams street, New York. The mines are operated by the New Mexico Fuel Company, W. P. Thompson, general manager; George T. Peart, superintendent, with offices at Capitan, N. Mex.

There are two workable seams of coal known as the Ayers and the Akers veins. They are $2\frac{1}{2}$ feet to $3\frac{1}{2}$ feet and $3\frac{1}{2}$ feet to 6 feet in thickness, respectively. Only the thicker vein, the Akers, is now being worked. The product is a good quality of bituminous coal, of a coking variety. Total output for the fiscal year, 169,440 tons; amount used at mines, 3,000 tons; net product, 163,440 tons. Estimated value at mines, \$2 per ton, \$326,880. This shows an increase of output of 85,646 tons over the previous fiscal year. Average number of men employed outside, 35; average number of boys employed outside, 1. Average number of men employed underground, 150; average number of boys employed underground, 10. The employees are of various nationalities, including English, Scotch, Irish, Germans, Italians, Slavs, Poles, and Mexicans. As shown by signatures to vouchers, about 25 per cent could not write. Number of days mine worked during fiscal year, three hundred and five. Depth of slope in Akers No. 1 mine, 800 feet; in Akers No. 4 mine, 1,250 feet. Depth of slopes in mines Nos. 7, $7\frac{1}{2}$, 8, and 10, 150 feet, 300 feet, 300 feet, 300 feet. Recently operations have been suspended on the mines known as Nos. 6 and $7\frac{1}{2}$, which were cut off in the bottom of slopes by an igneous dike. The mines Akers No. 1 and Akers No. 4 are ventilated by exhaust fans, the other mines by air shafts. The system of working the mines is by slope, double-entry, room, and pillar. Steam power is used for hoisting, there being two 40-horsepower, three 20-horsepower, and two 30-horsepower engines in use.

The town of Capitan is populated solely by those engaged in and about the coal mines. The population is about 600. There are about 100 comfortable dwellings, a large boarding house, and hospital maintained by the company. The location is most healthful, being 6 miles from Fort Stanton, which point the United States Government has chosen for a sanitarium for the American sailors, on account of its healthy atmosphere and surroundings.

RECORD OF INSPECTION.

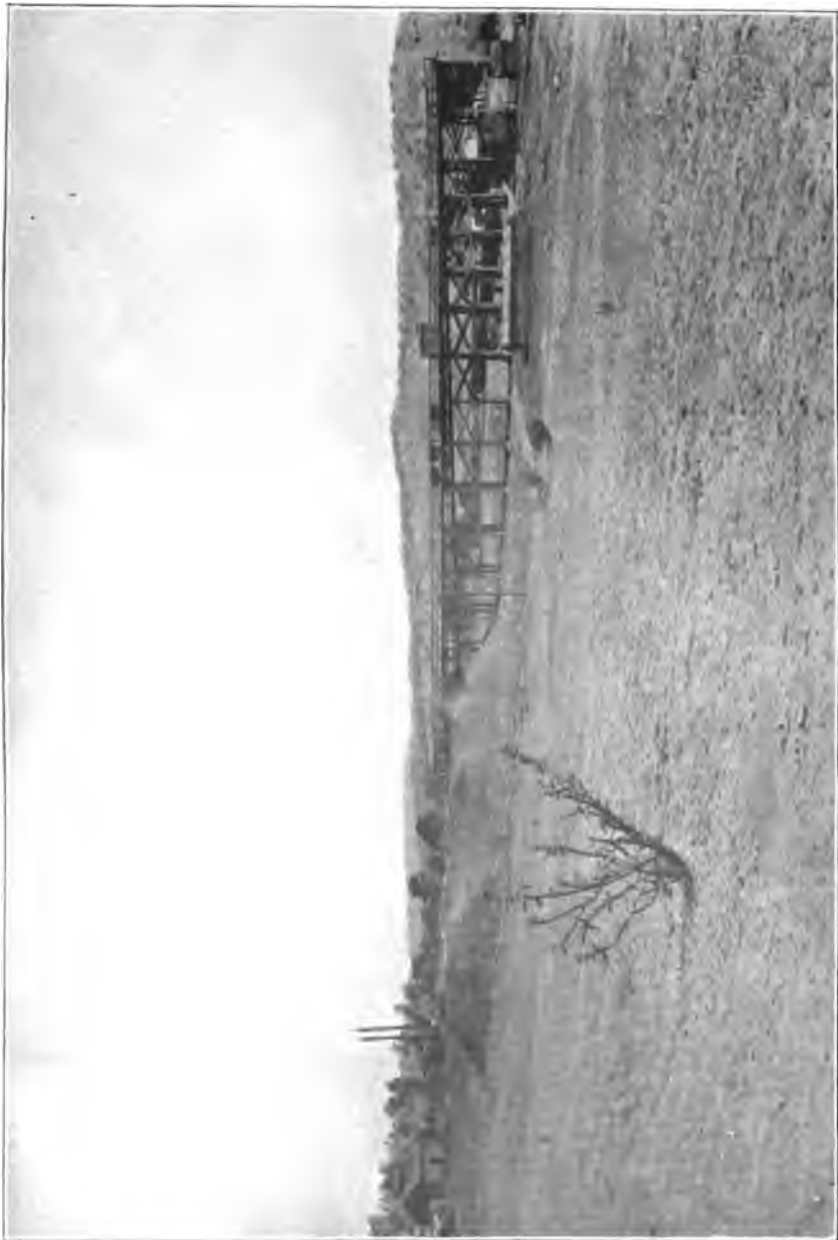
November 10, 1900.—Inspected mine No. 1, Capitan, N. Mex., operated by New Mexico Fuel Company. Air intake, 17,280 cubic feet per minute, well distributed to working faces. Thirty-eight men employed underground. Mine well timbered; no gas.

January 10, 1901.—Inspected mine No. 1, Capitan, N. Mex. Air intake, 18,000 cubic feet per minute. Forty-three men employed underground. Air well distributed to working faces. Mine well timbered; no gas.

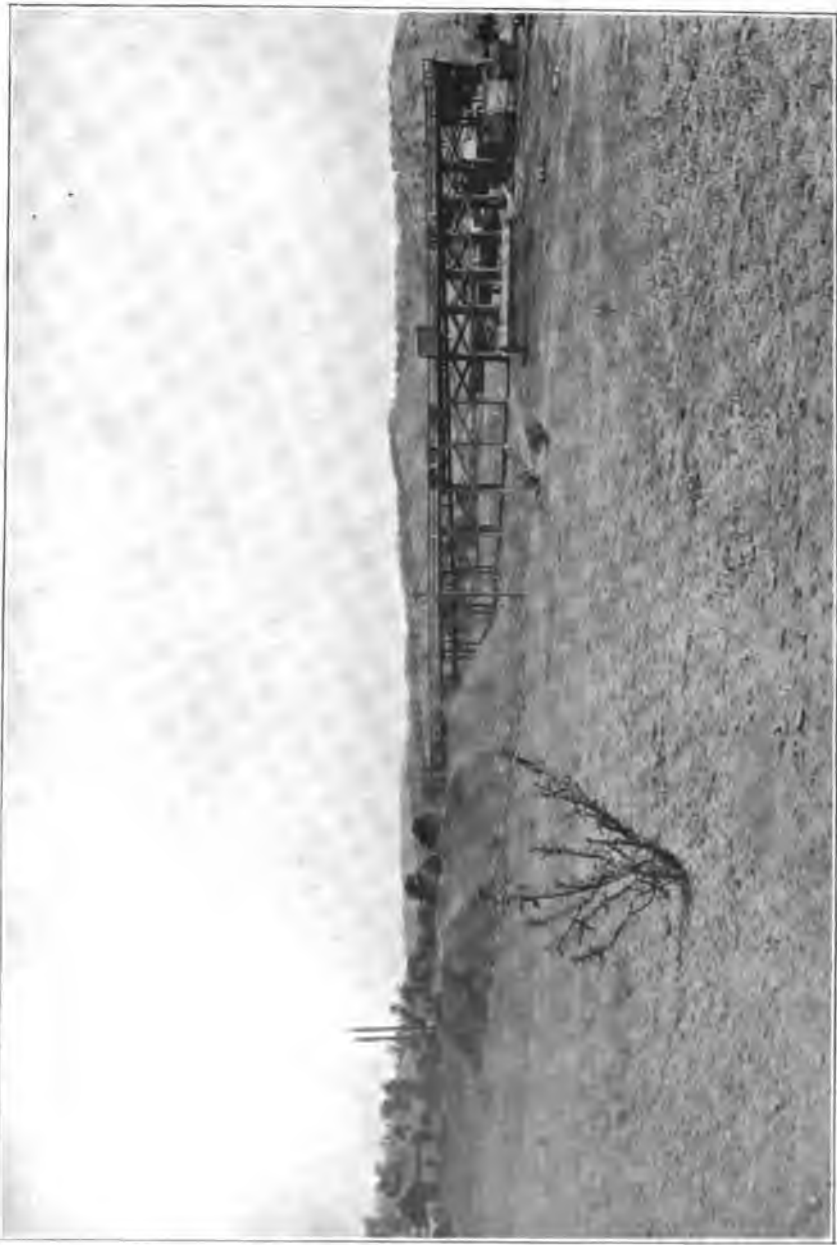
March 7, 1901.—Inspected mine No. 1, Capitan, N. Mex. Found machinery in good condition except boiler, which is of insufficient capacity. An auxiliary boiler being put in condition to add to steam capacity. Air intake, 30,000 cubic feet per minute, well distributed to working faces. Seventy men employed underground. Mine well timbered; no gas.

May 10, 1901.—Inspected mine No. 1, Capitan, N. Mex. Air intake, 28,000 cubic feet per minute; air well distributed to working faces. Sixty-two men employed underground. Mine well timbered; no gas.

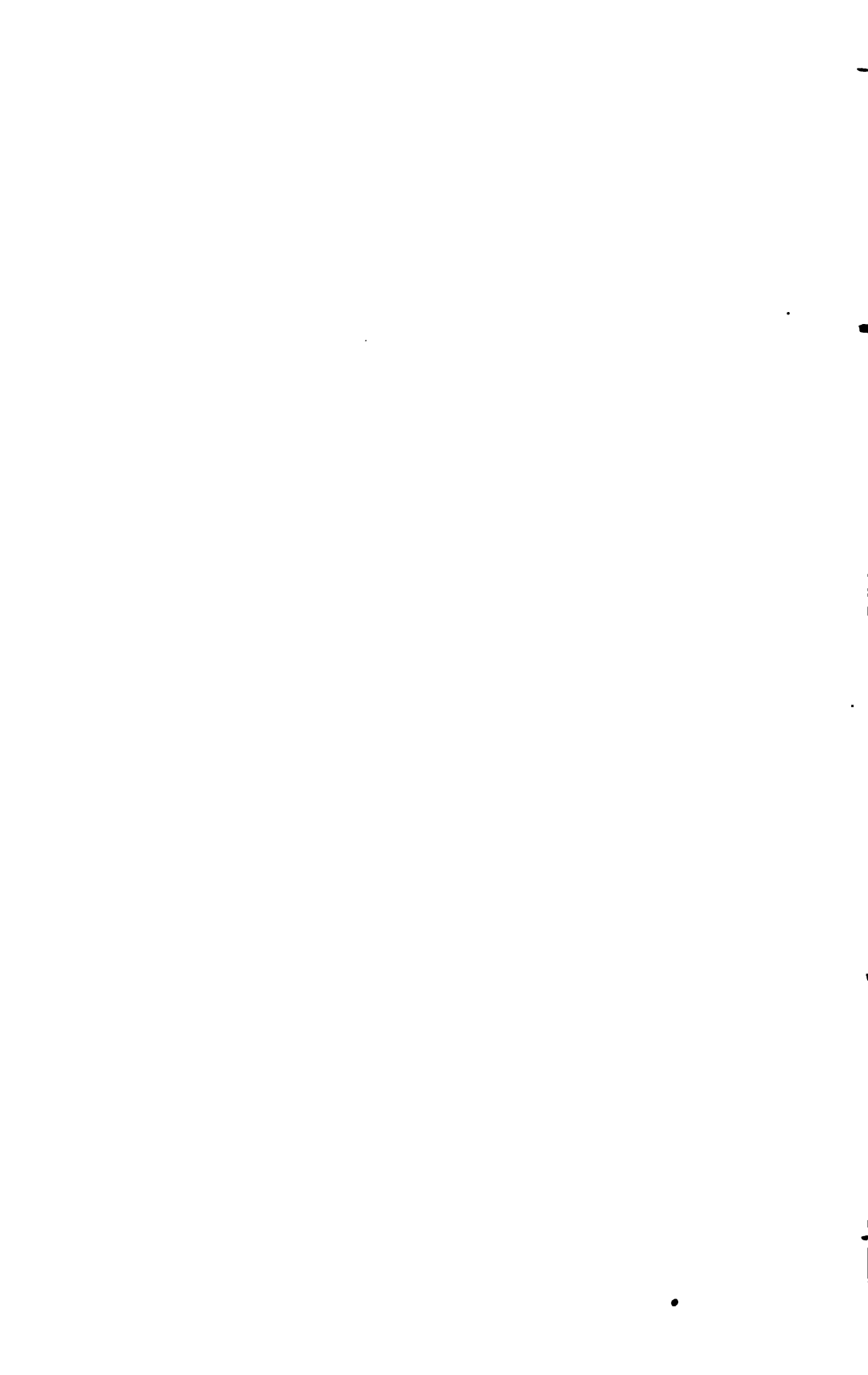
November 10, 1900.—Inspected mine No. 4, Capitan, N. Mex., operated by New Mexico Fuel Company, James McCartney, pit boss. Machinery, cars, cable, etc., in



VIEW SHOWING NO. 2 MINE AT CAPITAN, LINCOLN COUNTY, N. MEX., OWNED BY THE NEW MEXICO FUEL COMPANY



VIEW SHOWING NO. 2 MINE AT CAPITAN, LINCOLN COUNTY, N. MEX., OWNED BY THE NEW MEXICO FUEL COMPANY





May 9, 1901.—Inspected mine No. 10, Capitan, N. Mex. Ventilation good. Seven miners employed underground. Mine well timbered; no gas.

Prices paid for labor, mining coal, etc., by the New Mexico Fuel Company, on mines Nos. 1, 4, and 8, at Capitan, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein No. 1, 4½ to 6 feet.
 Mining coal, per ton of 2,400 pounds, mine run, 65 and 85 cents.
 Thickness of vein No. 4, 3½ to 6 feet.
 Mining coal, per ton of 2,400 pounds, mine run, 60 cents.
 Thickness of vein No. 8, 5 feet.
 Mining coal, per ton of 2,400 pounds, mine run, 75 cents.
 Driving main entry, per yard, \$2.
 Driving back entry, per yard, \$7.
 Narrow work, per yard, \$4 and \$3.
 Driving crosscuts, per yard, \$2 and \$1.
 Driving main slope, when in faults or solid rock, per yard, \$9.
 Turning rooms, \$5.

Wages paid:

Pit bosses, per month.....	\$100.00
Fire bosses, per day.....	3.00
Shot firers, per day.....	3.00
Machine men on coal-cutting machines, per day.....	4.00
Helpers on coal-cutting machines, per day.....	2.50
Track layers, per day.....	2.75
Company timbermen, per day.....	2.75
Company men underground, per day.....	3.00
Single mule drivers, per day.....	2.75
Team drivers, per day.....	2.75
Rope riders, per day.....	2.80
Car couplers, per day.....	1.75
Boys attending to doors, per day.....	1.00
Engineers, per month.....	75.00
Boilermen, per day.....	2.50
Weighmen, per day.....	2.50
Tipplemen, per day.....	1.75
Blacksmiths, per day.....	3.25
Blacksmiths' helpers, per day.....	2.50
Carpenters, per day.....	3.00

Prices of powder and supplies for miners at mines Nos. 1, 4, and 8.

Powder, per keg.....	3.00
Lamp oil, per gallon.....	.75
Lamp cotton, per ball.....	.05
Squibs, per box.....	.25
Deductions:	
Doctors, per month.....	1.00
Blacksmithing, per month.....	1.00
Hospital, per month.....	.50
House rent, 2 rooms, per month.....	4.00
House rent, 3 rooms, per month.....	6.00
House rent, 4 rooms, per month.....	8.00

OLD ABE COAL MINE.

This mine is owned and operated by the Old Abe Company, a mining company also operating the Old Abe gold mine at Whiteoaks, N. Mex. The names of the officers of the company are: John Y. Hewitt, president; William Watson, vice president, and Levin W. Stewart, secretary. The coal mine is located about 12 miles north from Carrizoso Station on the El Paso and Northeastern Railroad and about 3 miles from the town of Whiteoaks, N. Mex. The mine produces a good grade of bituminous coal. Thickness of vein, 3 feet 6 inches; depth of slope, 400 feet; average number of men employed underground, 6; average number of men employed outside, 1; number of days mine worked, 300; output during fiscal year, 3,342 tons, showing a decrease in production of 904 tons as compared with last year. The product of the mine is nearly all used at the company's gold mine at Whiteoaks, N. Mex.

RECORD OF INSPECTION.

November 14, 1900.—Inspected Old Abe coal mine. Found mine ventilated by an air shaft. Air current weak and erratic, but good air at all working faces. Seven men employed underground; mine well timbered; no gas. The coal is hoisted to the surface by means of a whim operated by horsepower.

LINDERMAN MINE.

This mine is situated about 3 miles west of Capitan, N. Mex. It has been operated by the Linderman Coal Company; J. J. Blow, general manager; W. Bryden, superintendent. The mine is yet in the prospective stage. The main slope has attained a depth of 450 feet, but the ground was broken and faulty, the coal occurring in bunches. Ten to 15 men were employed for several months in development work. The mine has not produced any coal for market. A prospect shaft was being sunk to the west of the slope, but as to whether a good seam of coal was encountered or not no information is at hand.

RECORD OF INSPECTION.

January 12, 1901.—Inspected Linderman mine. Found machinery in good condition. Mine well timbered; ventilation good; no gas. Fifteen men employed on mine.

March 12, 1901.—Inspected Linderman mine. Air intake, 3,500 cubic feet per minute. Sixteen men employed on mine. Mine well timbered; no gas.

MCKINLEY COUNTY.

[Formerly a part of Bernalillo County.]

W. A. CLARK COAL MINE.

This mine is located at Clarkville, about 5 miles west of Gallup, McKinley County, N. Mex. The mine is owned and operated by Senator W. A. Clark, of Butte, Mont. W. L. Bretherton is the resident agent at Clarkville and is the active manager of the property. The property has an area of 1,200 acres, underlain by five veins of coal of the following thickness, as shown by diamond-drill borings: Top vein, 2½ feet; second vein, 3½ feet; third vein, 3½ feet; fourth vein, 5½ feet; and fifth vein, 4 feet. Only one vein is worked at present. This vein varies from 4½ to 7½ feet in thickness. Dip of vein varies from 1 to 11 per cent. The system of working is slope, double entry, room, and pillar. Depth of main entry, about 2,750 feet from mouth of entry to face. The coal is a lignite and is used for steam and domestic purposes. Total output for the fiscal year ending June 30, 1901, 155,000 tons. Number of tons used in operating the mine, 5,000. Net product of mine, 150,000 tons. This shows an increased production over the fiscal year ending June 30, 1900, of 59,950 tons. Estimated value of the output at the mine, \$200,000. The coal is marketed in New Mexico, Arizona, and California. The product of the mine was lessened about 5,000 tons by a strike of the miners.

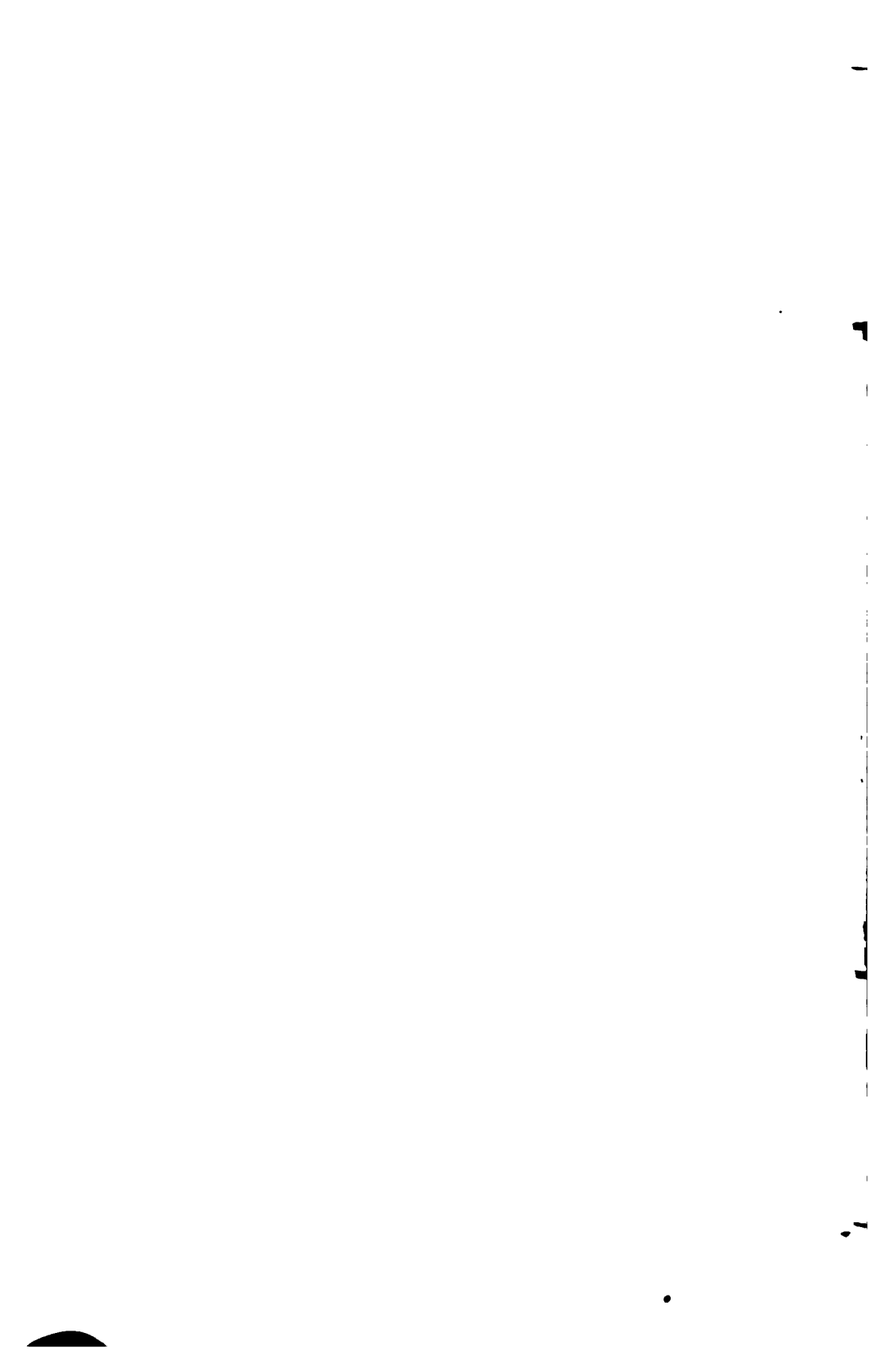
On January 1, 1901, the miners employed in this mine organized as a branch or part of the American Mine Workers. On May 13 the miners struck because the manager refused to reinstate a discharged union man, who was discharged for incompetency. Operation of the mine was suspended less than a week, starting up on May 20 with nonunion men, mostly old hands, and the force gradually increased with same class of men to the full quota.

Average number of men employed outside, 50; mostly Americans.

Average number of men employed under ground, 200; all nationalities.

Average number of boys employed under ground, 4.

As shown by signatures to vouchers, there is an exceedingly small percentage of the men who can not write. The mine was worked about three hundred days during the year. An efficient and economical electric system supplies the power and light for the mine. Two hundred and fifty volts are carried on the haulage system. The power generated is equal to 250 horsepower. Four motors, with a total capacity of 200 horsepower, are in use in the mine hauling the coal to the tippie. Two steam engines, one 125-horsepower Corliss and one 175-horsepower high-speed, furnish power to run the dynamos.



good condition. Air intake, 18,720 cubic feet per minute; air well distributed and circulating at working faces. Forty men employed underground. Mine well timbered; no gas.

January 11, 1901.—Inspected mine No. 4, Capitan, N. Mex. Air intake, 23,220 cubic feet per minute. Fifty-six men employed underground. Air well distributed to working faces. Mine well timbered; no gas.

March 8 and 9, 1901.—Inspected mine No. 4, Capitan, N. Mex. Air intake, 21,125 cubic feet per minute. Sixty-three men employed underground. Air well distributed to working faces, but air fouled by continual shooting at all hours. Instructed that this indiscriminate shooting should be remedied. Found some CH_4 venting into face of second and third right entries; instructed that air be carried close to face of both entries and circulation be kept strong. Mine well timbered.

May 11, 1901.—Inspected mine No. 4, Capitan, N. Mex. Air intake, 20,000 cubic feet per minute; air well distributed to working faces. Forty-four men employed underground. Instructed that additional timbers be placed in some of the rooms. No gas.

November 12, 1900.—Inspected mine No. 6, Capitan, N. Mex., operated by New Mexico Fuel Company, David Richards, pit boss. Air intake, 5,600 cubic feet per minute, well distributed to working faces. Eight miners employed. Mine well timbered; no gas.

January 10, 1901.—Inspected mine No. 6, Capitan, N. Mex. Air intake, 1,650 cubic feet per minute, well distributed to working faces. Five miners employed. Mine well timbered; no gas. Soon after this visit of inspection operations were suspended upon this mine on account of vein being faulted and cut off by dike.

November 12, 1900.—Inspected mine No. 7 $\frac{1}{2}$, Capitan, N. Mex. Fair natural ventilation, with good air at working faces. Six miners underground. Depth of slope, 225 feet. Mine well timbered.

January 9, 1901.—Inspected mine No. 7 $\frac{1}{2}$, Capitan, N. Mex. Air intake, 2,640 cubic feet per minute. Six miners underground.

At about 11 a. m. to-day two miners, named respectively Frank Rubeck and Frank Baker, were burned in a crosscut, being driven from left back-air course to main slope. The men claimed they had been burned by an explosion of gas (CH_4) ignited by a shot which they fired in the face of the crosscut. It was highly improbable, as they had been working with naked lights. In company with Mine Superintendent G. T. Peart and a miner named Gus. Queen I made a careful examination of every crack, crevice, and pothole along the crosscut where the accident occurred, going into the face of the crosscut, using a safety lamp to test for gas. I found no indication of gas whatsoever. In the face of the crosscut found the stump of the hole which they had fired. Evidently the collar of the hole had blown off when the top of the charge ignited and the balance of the charge had blown out in flame, in all probability igniting what dust may have been near by in the crosscut. It was evident that the accident was due to an excessive charge of powder and to the carelessness of the injured men in not having sufficient time to reach a place of safety before the explosion occurred. Only one of the men was injured to sufficient extent to require the services of a physician.

March 11, 1901.—Inspected mine No. 7 $\frac{1}{2}$, Capitan, N. Mex. Air current weak. Six miners employed underground. Mine well timbered; no gas.

May 9, 1901.—Inspected mine No. 7 $\frac{1}{2}$, Capitan, N. Mex. Air intake, 2,400 cubic feet per minute; 8 men employed underground. Mine well timbered, ventilation good, no gas.

November 12, 1900.—Inspected mine No. 8, Capitan, N. Mex. Air intake, 4,000 cubic feet per minute, well distributed. Twelve miners employed underground. Mine well timbered; no gas.

January 10, 1901.—Inspected mine No. 8, Capitan, N. Mex. Air intake, 3,000 cubic feet per minute, well distributed. Ten miners employed underground. Mine well timbered; no gas.

March 11, 1901.—Inspected mine No. 8, Capitan, N. Mex. Air intake, 2,250 cubic feet per minute, well distributed. Ten miners employed underground. Mine well timbered; no gas.

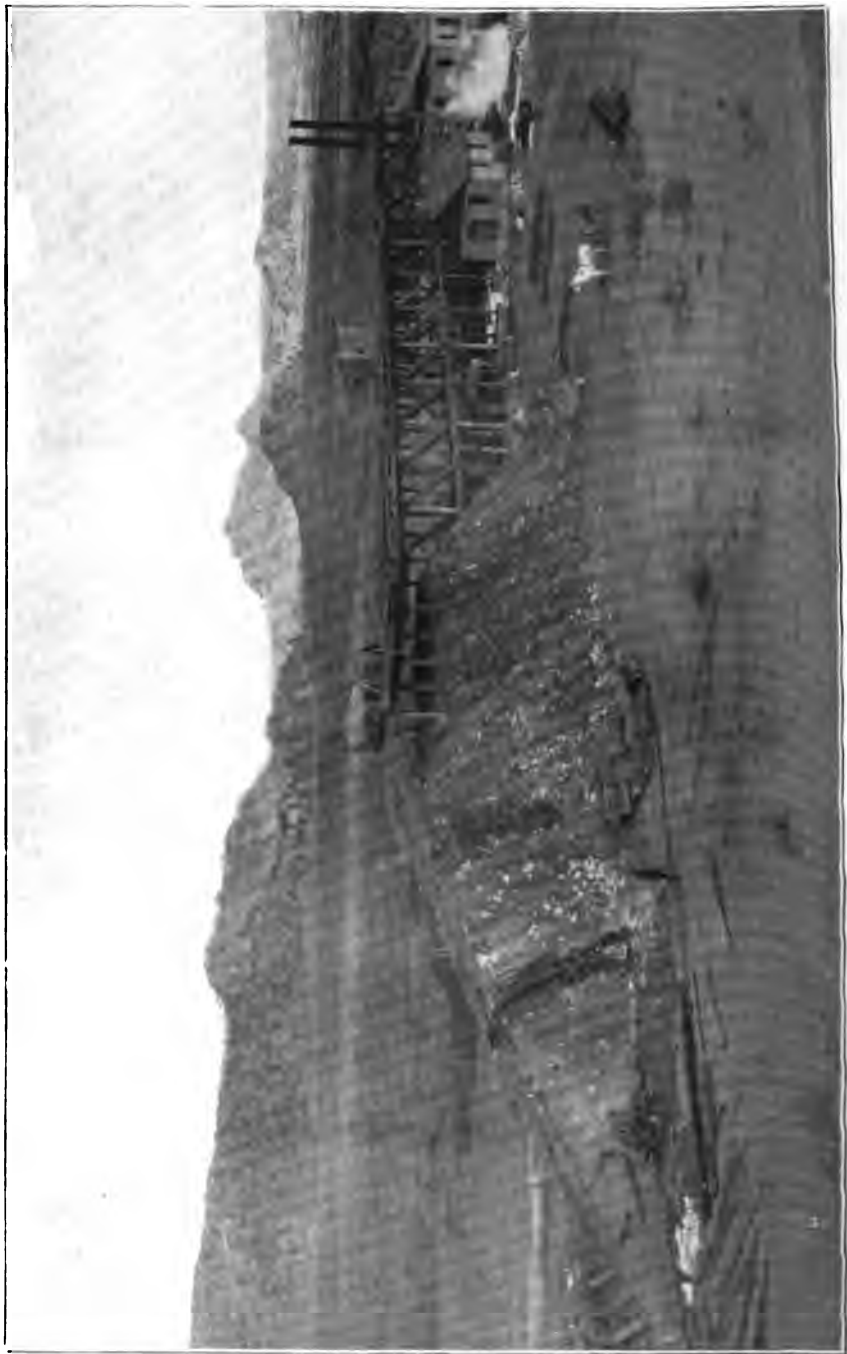
May 9, 1901.—Inspected mine No. 8, Capitan, N. Mex. Ventilation weak. Six miners employed underground. Mine well timbered; no gas.

November 12, 1900.—Inspected mine No. 10, Capitan, N. Mex. Good natural ventilation. Ten miners employed underground. Mine well timbered; no gas.

January 10, 1901.—Inspected mine No. 10, Capitan, N. Mex. Air intake, 5,400 cubic feet per minute, well distributed. Seven miners employed underground. Mine well timbered; no gas.

March 11, 1901.—Inspected mine No. 10, Capitan, N. Mex. Ventilation erratic. Eight miners employed underground. Mine well timbered; no gas.





WEST VIEW, THATCHER MINE AND TIPPLE, GALLUP, N. MEX.

Wages paid—Continued.

Boilermen, per day	\$2. 50
Weighmen, per day	3. 25
Tippelmen, per day	2. 50
Blacksmiths, per day	3. 50 and 3. 00
Blacksmiths' helpers, per day	2. 50
Carpenters, per day	3. 50

Prices of powder and supplies for miners at the W. A. Clark mine.

Powder, per keg	\$2. 50
Lamp oil, per gallon .....	. 65
Deductions:	
Doctors, per month	1. 00
Blacksmithing, per month	1. 00
Hospital .....	. 50
House rent, 2 rooms, per month	5. 00
House rent, 3 rooms, per month	7. 00
House rent, 4 rooms, per month	9. 00

GALLUP MINE.

This mine is situated at Gibson, McKinley County, N. Mex., about 3 miles northwest of Gallup, N. Mex.; a spur 3 miles in length connects with the Santa Fe Pacific Railroad near Gallup station and facilitates transportation of the product of the mine. The mine is owned and operated by the Colorado Fuel and Iron Company; J. A. Kebler, general manager, with office in the Boston Building, Denver, Colo.; W. M. Weaver, manager, in charge at the company's mines at Gallup, N. Mex.; Hugh McGinn, superintendent; P. A. O'Neal, pit boss. There are six coal seams of workable thickness and extent in this property, with an average cover of 100 feet on top vein. The seams are all exposed by outcrop which shows the distance between the seams to be very irregular, from 7 to 30 feet apart. The thicknesses of these coal beds are as follows: No. 1, 6 feet; No. 2, 5 feet; No. 3, 5 feet; No. 3½, 6 feet; No. 4, 4 feet; No. 5, 7 feet. Three of these veins, No. 3, No. 3½, and No. 5, are worked in the Gallup mine. The mine is operated by slope, double entry, room and pillar system. Ventilation is by propulsion fan. A hoisting plant of 130 horsepower furnishes the haulage power and a 40-horsepower engine furnishes the force for ventilation. Depth of slope, 4,000 feet; dip of coal seam, 5° to 14°; kind of coal, lignite; total output for fiscal year, 145,000 tons; used at mine, 3,000 tons; net output, 142,000 tons; estimated value of output at mine, \$145,000. Average number of men employed outside, 20; average number of men employed underground, 200; number of days mine was operated during fiscal year, two hundred and fifty. Value of improvements during fiscal year, \$10,000. The main slope was brushed and track relaid, a new machine shop added to equipment, and fifteen 4 and 6 room houses built for use of employees. The product of the mine is sold in Albuquerque, N. Mex., Arizona, Los Angeles, and San Francisco. The production of this mine was very materially lessened during the fiscal year by a strike of the miners. The miners demanded recognition of the union and union rules, which the company claimed was equivalent to control of the management of the mine. The strike was unfortunate for the coal industry of New Mexico, as it arrested the increase of production of coal from the Territory. The camp at the Gallup and Weaver mines is called Gibson. It is very prettily located, contains about 100 comfortable dwellings, good schoolhouse, the education of the children receiving close attention from officers of the company and the school generous financial aid from the company and its officers.

RECORD OF INSPECTION.

October 27, 1900.—Inspected Gallup mine. Air intake, 39,405 cubic feet per minute. One hundred and fifty men employed underground. Found the ventilation of mine very imperfect, air not well distributed, and much of it lost through abandoned workings before reaching faces of present workings. Evidences of black damp, no CH₄, mine well timbered, machinery in good condition. Instructed superintendent and pit boss to remedy defects in ventilation without delay.

December 17 and 18, 1900.—Inspected Gallup mine. Machinery in good condition. Air intake, 38,820 cubic feet per minute. One hundred and fifty miners employed.

Took air measurements at last crosscuts and faces. Found ventilation good, great improvement over last inspection. Called attention to bad methods of setting timbers practiced by some of the miners in rooms on sixteenth entry. Instructed that the ground be retimbered.

April 8, 1901.—Inspected Gallup mine. Air intake, 46,200 cubic feet per minute; air well distributed and circulation good at last crosscuts and working faces. One hundred and thirty men employed underground. Found some of the roadways entries, and rooms dry and an appreciable amount of dust in suspension in air. Instructed that all roadways, entries, and rooms be watered and kept moist. Instructed that a sprayer be placed in strong air current of intake to saturate the air as it enters the mine. The long interval since prior inspection of this mine was due to the fact that the mine was shut down on account of a strike.

June 11, 1901.—Inspected Gallup mine. Air intake, 46,200 cubic feet per minute. Eighty-five men employed underground. Air well distributed to all working faces; mine well timbered; no gas.

Investigated a fire which has been burning in No. 4 vein for ten years and which recently made near approach to main slope in No. 5 vein. Found that there is no danger to miners, as fire is under complete control and is being fought back from proximity of main slope.

Prices paid for labor, mining coal, etc., by the Colorado Fuel and Iron Company on the Gallup mine at Gibson, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 60 inches.

Mining coal, per ton of 2,000 pounds, mine run, 58 cents.

Thickness of vein, 72 inches.

Mining coal, per ton of 2,000 pounds, mine run, 58 cents.

Driving main slope when in natural coal, per yard, \$3.50.

Turning rooms, \$4.

Setting 6-foot timbers, 50 cents.

Setting timbers over 8 feet in length, \$1.

Wages paid:

Pit bosses, per day	\$3.00
Fire bosses, per day	3.00
Track layers, per day	3.00
Company timbermen, per day	3.00
General company men, per day	3.00
Company men underground, per day	3.00
Assistants to company men, per day	3.00
Single mule drivers, per day	3.00
Team drivers, per day	3.00
Rope riders, per day	3.25
Car couplers, per day	1.50
Boys attending to doors, per day	1.00
Stable boss, per day	2.75
Engineers, per day	4.00
Boiler men, per day	2.50
Weighmen, per day	3.00
Tipple men, per day	2.25
Blacksmiths, per day	3.00
Blacksmiths' helpers, per day	2.50
Carpenters, per day	3.00-3.50

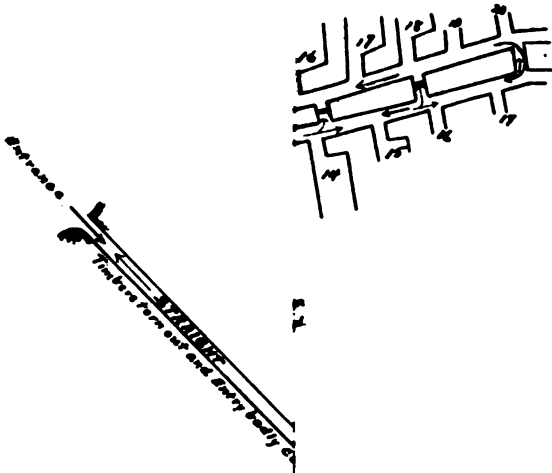
Prices of powder and supplies for miners at the Gallup mine.

Powder, per keg	\$2.50
Lamp oil, per gallon .....	.75
Lamp cotton, per ball .....	.05
Squibs, per box .....	.25
Deductions:	
Doctors, per month	1.00
Blacksmithing, per month	1.00
House rent, 2 rooms, per month	4.00-4.50
House rent, 3 rooms, per month	6.00
House rent, 4 rooms, per month	8.00-10.00



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WEAVER MINE.

The Weaver mine adjoins the Catalpa mine and is Colorado Fuel and Iron Company. The mine is under superintendency as the Gallup mine with the exception of McGinn occupying that position upon the Weaver mine during the past fiscal year. There are six veins of coal with those hereinbefore described in the Gallup mine in the Weaver mine, known as No. 3 and No. 3 $\frac{1}{2}$. The veins, then by double entry, rib and room system a propulsion fan. The mine mouth is located 800 feet from the surface, with a dip of 6 inches in 100 feet, so that mules easily haul coal up the shaft. The mine has but a slight grade to overcome returning with the steam engine runs the fan, and an 80-horsepower electric slack blower. Length of drift, 1,000 feet. Dip of vein 10 degrees to the pitch. The mine is equipped with the most improved operation—triple, chutes, shaking screens, and slack blower and blacksmith shops. Sixty 4 and 6 room dwellings for the use of employees. A well 1,000 feet in depth furnishes water for the camp and mine. Bath houses with accommodations, grain storehouse, powder magazine, and oil improvements have been completed within the past fiscal year.

Kind of coal, lignite; total output for fiscal year, 50,000 tons; gross mine, 1,500 tons; net output, 48,500 tons; estimated value, \$1,000,000. Average number of men employed outside, 10; average number under ground, 125; average number of boys employed, 10; number of days mine worked during fiscal year, one hundred and eighty; marketed at Phoenix, Ariz.; Santa Fe Pacific Railroad, Los Angeles and San Francisco, Cal. The strike restricts output very materially.

RECORD OF INSPECTION

December 18, 1900.—Inspected Weaver mine. Air in mine pure; air well distributed to working faces. Seventy feet of drift; No gas; mine well timbered.

Operations were suspended upon this mine from early in the middle of March, 1901. On March 30, 1901, a small explosion had occurred during the previous night. On April 3, 4, 5, 6, and 8 I made a report quickly as practicable. On April 3, 4, 5, 6, and 8 I made a report of the explosion, its cause, results, and endeavored to get the mine operating the mine that a recurrence of such disaster might be reported of which is hereinbelow given:

SILVER

SIR: I have the honor to transmit herewith a special report which occurred in the Weaver mine, at Gallup, N. M., on March 29, 1901.

This matter has demanded and received more than its share of attention, for the reason that it has demonstrated the danger especially in this vicinity. It is more than probable that the coal measures are more highly oxidized than the general run of coal likely to give rise to explosions of coal dust. From the experience of the miners in charge of the mines of the Gallup district has been difficult to bring them to a full appreciation of the danger in these mines. Fully convinced that the conclusions reached by the experienced miners are correct, the opinion of said experienced miners is hereby given in a special letter of instruction to the mine operators of the Territory of New Mexico and to all mine operators of the Territory of New Mexico the dangers of dust explosions in their mines, and instructions to be taken to guard against the same.

Copy of letter of instruction to mine operators will be reported.

All of which is respectfully submitted.

Your most obedient servant,

United States A.

The COMMISSIONER OF THE GENERAL LAND OFFICE,
Washington

Special report on explosion which occurred at the Weaver coal mine, near Gallup, N. Mex., at or about 12 p. m. March 29, 1901.

SIR: On the morning of March 30 I received the following telegram from the general manager of the Colorado Fuel and Iron Company's coal mines, apprising me of an explosion at the Weaver mine:

DENVER, COLO., March 30, 1901.

JO E. SHERIDAN,
United States Mine Inspector, Silver City, N. Mex.

Three miners killed, Weaver mine, Gallup, N. Mex., last night. Explosion.

JOHN T. KEBLER.

A message of the same tenor was also received from Mr. W. M. Weaver, local general manager at the mines, Gallup, N. Mex. I immediately wired Mr. W. M. Weaver to "maintain conditions at scene of explosion unchanged until my arrival."

I arrived at Gallup, N. Mex., on Wednesday morning, April 3, 1901, and about 8 a. m. went to Weaver mine and proceeded with investigation of the explosion.

I found that all the timbers in the main entry had been blown outward toward the mouth of the entry for a distance of 285 feet to the point where the No. 1 level (known also as first left main air course) is turned off from main entry. From this point the wreckage and débris had been driven in the opposite direction along the main entry, indicating that this point might be the center of violence. See point marked "a," "Main explosion," on sketch. At this point, also, a large timber in the roof of straight entry was much battered and indented on the bottom and below the lower semidiameter, but untouched above that, indicating that there was little or no violence from either side toward that point, but on the contrary that this was at the center of violence and that the explosive force had vented either way from this point.

Leaving the straight entry and following No. 1 level, or first left main air course, examining each room thereon, I found in room No. 2 that there had been two blown-out shots. These shots had expended most of their force upward, and while they threw up considerable dust were less likely to ignite it than if directed against a more dense volume of dust, as would be the case if the shots expended their force toward the floor. Traversing No. 1 level, or first left main air course, and rooms thereon beyond No. 2 room but little evidence of explosive violence was found, only a very light deposit of sooty residue from the deflagration of coal dust.

Passing along No. 1 level, or first left main air course, beyond crosscut at room No. 16, even this evidence (soot) lessened, indicating that the explosive or expansive force had cushioned against the air in ends of the levels No. 1 and No. 2, as shown in sketch. Following indications of course of explosion toward its probable initial point, I passed from No. 1 level to No. 2 level through crosscut from No. 16 room, No. 1 level to room No. 12 on No. 2 level. The residue of sooty matter increased from room No. 14 on No. 2 level to room No. 11 on same level, again decreasing along rooms Nos. 10, 9, and 8 till it reached the minimum deposit at room No. 6, indicating that the maximum of combustion had taken place in room No. 11.

Closer investigation hereabout revealed a very strong blown-out shot in room No. 11, which Lafayette Gunter, the man employed in the room on day shift preceding the explosion, informed me was fired at night by one of the deceased miners, Harry Applegarth or Robert Holman. This shot bottomed within an inch of the solid top and was blown out downward upon the floor of the room, displacing one of the timbers in front of it and sweeping the floor clear as if with a broom, only an after residue of soot showing upon the floor.

In No. 2 level, at points indicated by dots, were found the bodies of Harry Applegarth and Robert Holman. Near by the body of Robert Holman a mine car was standing absolutely uninjured. Picks and shovels were found standing against the walls in several of the rooms along both levels. One keg of black powder was uninjured in a miners' supply box in No. 2 level opposite room No. 8; another keg of powder was found uninjured, in a gunny sack, on No. 1 level between rooms No. 16 and No. 17. One powder can was found in No. 2 level, which showed that it had exploded, as both ends were drawn inward by the vacuum as the burning powder found egress through the weakest line along the seam on the side of can. Cars were found uninjured at several places along these levels, No. 1 and No. 2, while cars standing on parting in straight entry were carried 100 feet by the great explosive wave in main entry and broken into shapeless fragments against the side of entry at point marked "B" on sketch. The whole explosion is an anomalous occurrence as compared with explosions cited by best authorities.

Coal-dust explosions are usually accompanied by a residue of coke and coal dust thrown into the timbers along the course of violence and frequently indicating very plainly the direction of origin.

Safety-lamp tests for CH_4 failed to show a trace in any part of the workings of the mine, nor has there ever been any found in the mine previous to nor since the explosion.

DEDUCTION.

Upon casual consideration it would appear that the initial point of the explosion was in room No. 2, No. 1 level, as here were found two blown-out shots and a greater deposition of sooty matter, evidently the residue from the combustion of coal dust; but upon more deliberate introspection it will be seen that the explosion originating at this point was highly improbable if not impossible to have occurred, judging from the results produced.

Had it originated in room No. 2 and communicated with and caused the violent explosion in the main entry, only 95 feet distant, then the great explosive waves passing outward to exit at mouth of main straight entry and inward to exit at the furnace shaft would not only have cut off all supply of air, but also have created to a certain extent a vacuum in No. 1 level, or first left main air course, and in No. 2 level, or first left main entry, and thereby precluded the possibility of communicating the explosion to the rooms on No. 2 level, Nos. 10, 11, 12, where there were distinct evidences of an explosion, but very much less violent than that on the straight entry.

On the contrary, a more deliberate introspection shows that the explosion originated from a blown-out shot in room No. 11, on No. 2 level; that it communicated to less extent in rooms Nos. 10 and 12, laterally through crosscuts; that it followed No. 2 level on return air for about 200 feet, but that as usual the greater force was exerted in the direction of the greater supply of oxygen, and consequently it passed through crosscuts against the air and followed first left main air course toward straight entry; that the limited area in the smaller openings of No. 1 and No. 2 levels did not furnish sufficient oxygen for complete combustion of a large portion of the coal dust being carried in suspension by the explosive wave; that the turbid stream of combined air, CO_2 , the result of the combustion of powder and coal dust, together with CO , resulting by the burning of the coal dust taking one volume of O from the CO_2 , and possibly some CH_4 , liberated in burning of the coal dust. This turbid stream of these several component parts was redispersed, as a stream of muddy water, at every point in its course and recharged with coal dust accumulated by the way. Only that portion of this stream in immediate advance came in contact with sufficient oxygen to maintain the incandescence of the coal dust which it carried. This wave as it traveled along from its initial point in room No. 11 was not in a condition of true explosion, but rather in a state of slow combustion or deflagration of the suspended dust.

As this wave passed outward along No. 1 level toward straight entry, when it reached room No. 2 the same conditions (coal dust in suspension in the air in explosive quantity) which originated the explosion were encountered and the dust in this room was ignited, as evidenced by the greater deposition of sooty matter found. While there was no great violence in this room, just as in room No. 11, yet this added again to the volume and probable velocity of the wave.

It then continued on its course to the straight entry, where in the much greater area of the larger opening it came in contact with a large supply of oxygen, and at the point marked "a," "Main explosion," the whole was exploded with the sudden force of a detonating explosive, as evidenced by the impact necessary to break the solid sandstone roof of this straight entry, as it did, breaking the roof from 6 to 15 feet on top of the entry.

There was nothing positive to show direction of explosion or to trace it from its initial point along passageways to main entry. No coarse coal dust nor coke driven into timbers could be discerned by sight, but guided by sense of touch I believe I found coarser particles, as if thrown against timbers from the direction in which the explosion traveled outward from No. 11 room.

As against the theory of the origin and initial point of the explosion, hereinbefore given, there is but one contradictory circumstance. That is, many of the light board stoppings in crosscuts between No. 1 level and No. 2 level were blown into No. 2 level, indicating that the course of the explosion had been from No. 1 to No. 2. This is easily explained upon the theory that the less violent expansive force of the incandescent coal dust, as described, had broken down these stoppings, dropping the wreckage in the crosscuts, to be afterward thrown into No. 2 level by the recoil when the vacuum was relieved by the exhaustion of the explosive waves. The inrush of air from the entrance or intake and along No. 1 level would have just such effect.

In conclusion, the deceased miners were evidently trying to break too much coal with their shots, with the result that they produced blown-out shots, which in turn agitated the coal dust, enough being thrown and held in suspension in the air to reach the point of ignition and explosion.

That the preponderance of evidence shows that it originated in room No. 11 on No. 2 level. That a similar condition as in No. 11 room existed in No. 2 room on No. 1 level.

That the coal miners of this Territory, generally, do not appreciate the danger of coal-dust explosions, and, as in the present instance, are reckless as to the unreasonable strength of the holes they bore.

That stringent rules should be enforced in regard to miners drilling holes that are too strong or loading holes with too great a charge of powder.

Respectfully submitted.

Your most obedient servant,

JO E. SHERIDAN,

United States Mine Inspector for New Mexico, Silver City, N. Mex.

THE COMMISSIONER OF THE GENERAL LAND OFFICE,

Washington, D. C.

COPY OF LETTER OF INSTRUCTION TO MINE OPERATORS.

SILVER CITY, N. MEX., *May 4, 1901.*

To _____,
_____ of the _____ mine,
_____, N. Mex.

SIR: The recent explosion, March 29 ultimo, at the Weaver mine at Gallup, N. Mex., has demonstrated the imminent danger of a coal-dust explosion, ever present in bituminous and lignite coals even when no trace of CH₄ can be detected in the mine, as in the case above referred to. Heretofore the officials in charge of the several coal mines of this Territory have been careless in guarding against this great danger of coal-dust explosion. Many of them even now dissent from the opinion that very violent explosions may be caused by coal dust and lack appreciation of this great danger.

Therefore, in order that the attention of all coal-mine officials may be called to this matter, I hereby issue the following instructions:

That all entries, roadways, and rooms in mines be kept as free from accumulations of coal dust as practicable.

That wherever practicable a sprayer be placed in the air intake to the mine for the purpose of saturating the air as it passes into the mine, and that it be placed where the velocity of the air current is great. In extensive workings more than one sprayer may be necessary.

That where this is impracticable or inconvenient all dry entries, roadways, and rooms in the mine shall be kept damp and dust allayed by means of pipe line or hose, or by water cars with which to sprinkle all of said dry workings in the mine as frequently as necessary to completely fulfill the intent with which this instruction is issued, viz, to keep your mine in such condition as to positively eliminate all danger of a coal-dust explosion. You will please give this instruction your immediate attention.

Yours, very respectfully,

JO E. SHERIDAN,

United States Mine Inspector for New Mexico, Silver City, N. Mex.

April 18, 1901.—Inspected Weaver mine to be certain that instructions given as to sprinkling of mine and safely retimbering main entry were being carried into effect. Found everything possible being done to render mine safe.

June 10, 1901.—Inspected Weaver mine. Air intake, 11,600 cubic feet per minute; circulation erratic, as it is dependent upon a furnace shaft, but new fan is being installed which will give ample ventilation. Ninety-six miners employed. Found several rooms on first left and second left entry without sufficient timbers. Instructed that the necessary timbers be set in those rooms.

Prices paid for labor, mining coal, etc., by the Colorado Fuel and Iron Company on the Weaver mine at Gallup, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 5 and 6 feet.

Mining coal, per ton of 2,000 pounds, mine run, 58 cents.

Driving main entry, per yard, \$2.

Driving back entry, per yard, \$2.
 Narrow work, per yard, \$2.
 Driving crosscuts, per yard, \$1.50.
 Turning rooms, \$4.
 Setting rough 6-foot timbers, 50 cents.
 Setting timbers over 6 feet in length, \$1.
 Wages paid:

Pit bosses, per day	\$3. 00
Shot firers, per day	3. 00
Track layers, per day	3. 00
Company timbermen, per day	3. 00
General company men, per day	3. 00
Company men underground, per day	3. 00
Assistants to company men, per day	3. 00
Single mule drivers, per day	3. 00
Team drivers, per day	3. 00
Rope riders, per day	3. 25
Car couplers, per day	2. 25
Boys attending to doors, per day	1. 00
Stable boss, per day	2. 75
Engineers, per day	3. 00
Boilermen, per day	2. 50
Weighmen, per day	3. 00
Tipplemen, per day	2. 25
Blacksmiths, per day	3. 00
Blacksmiths' helpers, per day	2. 50
Carpenters, per day	3. 00-3. 50

Prices of powder and supplies for miners at the Weaver mine.

Powder, per keg	\$2. 50
Lamp oil, per gallon .....	. 75
Lamp cotton, per ball .....	. 05
Squibs, per box .....	. 25
Deductions:	
Doctors, per month	1. 00
Blacksmithing, per month	1. 00
House rent, 2 rooms, per month	4. 00
House rent, 3 rooms, per month	6. 00
House rent, 4 rooms, per month	8. 00-10. 00

CATALPA MINE.

This mine is located about 3½ miles in a southeasterly direction from Gallup, McKinley County, N. Mex. The mine is owned and operated by the Colorado Fuel and Iron Company, with the same general managers and officials as the Gallup and Weaver mines; Thomas Ramsey, superintendent. A railway spur connects the mine with the main line of the Santa Fe Pacific Railroad near Gallup, N. Mex. The property contains several valuable veins of coal. Two seams, the Crown Point and the Thatcher, are worked through the Catalpa mine; each seam is 6 feet in thickness. The mine is operated by slope, room, and pillar system. Ventilated by exhaust fan. A 75-horsepower steam engine furnishes the hoisting power, a 35-horsepower engine runs the tippie, a 15-horsepower engine runs the fan, and forced draft for the boilers is supplied by an 8-horsepower engine. The mine is opened by a slope 2,100 feet in depth; dip of vein, 8 degrees. A new tippie valued at \$8,000 was completed during the fiscal year. Total output for fiscal year, 78,384 tons; amount used in operating mine, 720 tons; net product, 77,664 tons; estimated value of output at mine, \$107,800. Average number of men employed outside, 20; average number of men employed underground, 125; average number of boys employed underground, 5; number of days mine was operated during fiscal year, two hundred and fifty. Kind of coal, lignite. The product is marketed in New Mexico, Arizona, and California. This mine was also restricted in production by the strike of miners. The company states that the product was decreased 75 per cent by the strike. At this mine a mining camp has grown to sufficient extent to meet the needs of the employees. About 75 comfortable dwellings, several boarding houses, a large store, offices, and storerooms make up a village of considerable pretensions.

RECORD OF INSPECTION.

October 26, 1900.—Inspected Catalpa mine. One hundred men employed in mine. Air intake through main slope, 18,750 cubic feet per minute. Air well distributed and circulation good in all working places. No gas; mine well timbered; machinery in good condition.

December 14, 1900.—Inspected Catalpa mine. One hundred and twenty-six miners employed. Air intake, main slope, 18,270 cubic feet per minute. Air well distributed and traveling close to all working faces. Machinery in good condition. Mine well timbered; no gas.

February 8, 1901.—Inspected Catalpa mine. Thirty-five miners employed. Air intake, mouth of main slope, 14,400 cubic feet per minute. Found ventilation good throughout the mine; no gas; mine well timbered.

February 11, 1901.—Having been informed by Mr. Golightly, president of the Gallup branch of the United Mine Workers, the members of which organization are now in conflict with the American Fuel Company, operating the Catalpa mine, that the fifth left entry of the Catalpa mine was insufficiently ventilated, I investigated same. I found that ventilation had been weak, as is often the case just before a crosscut is driven through, but that there is no part of the mine at present in which ventilation is not fully up to the requirements of the law.

April 10 and 11, 1901.—Inspected Catalpa mine. Air intake 14,280 cubic feet per minute. One hundred and ten men employed underground. Found ventilation weak at 1,400 feet on fourth right entry and instructed that crosscut entry to third right entry be driven through to connect as quickly as possible. Found ventilation weak near face at 1,700 feet of third right entry. The crosscut entry already ordered driven between third and fourth right entries will remedy this condition. On second right entry found roof of entry in dangerous condition at several points and called attention of Superintendent Ramsey to same and instructed that such localities be retimbered. Called attention of Superintendent Ramsey and General Manager W. M. Weaver to dryness and accumulation of dust in this entry at and near where pillars were being drawn, and instructed that the entry be well sprinkled and kept in a dampened condition and that the dust be removed.

Near the mouth of the slope found an oil room with tank capacity of about 3,000 gallons, the doors of oil room opening into the slope 30 feet from surface. Called attention of General Manager John T. Kebler, of Denver, and Local General Manager W. M. Weaver to danger of oil room and instructed that the oil be removed and cease storing oil at that point, which they promised to have done without delay.

June 13, 1901.—Inspected Catalpa mine. Air intake 10,200 cubic feet per minute; fan not running up to normal speed, as miners were not at work on account of change being made from old to new tippie. Inspected machinery and new tippie; found same in good condition. Found that oil tank had been removed from room at mouth of slope, as per instructions given when at mine on April 11, 1901.

Prices paid for labor, mining coal, etc., by the Colorado Fuel and Iron Company on the Catalpa mine at Gallup, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 72 inches.

Mining coal, per ton of 2,000 pounds, screened coal, 70 cents.

Driving main entry, per yard, \$2.

Driving back entry, per yard, \$2.

Driving crosscuts, per yard, \$1.50.

Driving main slope when in natural coal, per yard, \$2.50.

Turning rooms, \$4 per room.

Setting rough foot timbers, 50 cents a set.

Wages paid:

Pit bosses, per month.....	\$90.00
Fire bosses, per day.....	3.00
Track layers, per day.....	3.00
Company timbermen, per day.....	3.00
General company men, per day (\$2.25 and \$2.50).....	3.00
Company men underground, per day.....	3.00
Single mule drivers, per day.....	3.00
Rope riders, per day.....	3.00
Car couplers, per day.....	2.25
Boys attending to doors, per day.....	1.00
Stable boss, per day.....	2.50
Engineers, per month.....	85.00-75.00

Wages paid—Continued.

Boiler men, per month	\$75. 00
Weighmen, per month	80. 00
Tipple men, per day.....	2. 25-2. 50
Blacksmiths, per day.....	3. 00
Carpenters, per day.....	3. 50

Prices of powder and supplies for miners at the Catalpa mine.

Powder, per keg	\$2. 50
Lamp oil, per gallon.....	. 75
Lamp cotton, per ball .....	. 05
Squibs, per box .....	. 25
Deductions:	
Blacksmithing, per month.....	1. 00
Hospital, per month	1. 00
House rent, per room.....	2. 00-2. 50

THATCHER MINE.

The Thatcher mine is situated about 3 miles, in an easterly direction, from the town of Gallup, McKinley County, N. Mex. The mine is owned and operated by the Caledonian Coal Company, of Gallup, N. Mex.; Alexander Bowie, general manager; James W. Bowie, superintendent. A spur connects the mine with the main line of the Santa Fe Pacific Railroad. Two coal seams are worked in the Thatcher mine, one known as the Thatcher and the other as the Black Diamond. Average thickness of each coal seam, 4 feet 6 inches. System of working, slope, double entry, room, and pillar. Ventilation by exhaust fan. Six steam engines are in use, viz.: Hoisting engine, 160 horsepower; blower, 60 horsepower; fan, 16 horsepower; shaker, 16 horsepower, and 2 pumping engines of 10 and 12 horsepower, respectively. Kind of coal, lignite; total output for fiscal year, 37,813 tons; amount used in operating mine, 700 tons; net product, 37,113 tons; estimated value at the mine, \$64,994. Average number of men employed underground, 80; number of days mine operated during fiscal year, 183. Depth of slope, 1,800 feet. Operations suspended during July, August, and September, 1900, on account of lack of demand for coal, but could not supply demand during winter months. A strike occurred in May, 1901, on account of demand for higher price for mining. A compromise was effected after nine days, the company conceding to the miners 7½ cents per ton more for screened coal than before the strike. This strike caused a diminution of product amounting to about 2,000 tons. The product of the mine is marketed on the Santa Fe Pacific Railroad and connections.

RECORD OF INSPECTION.

October 23, 1900.—Inspected Thatcher mine. Air intake, 30,240 cubic feet per minute, air well distributed. Thirty-four miners employed in mine. No gas, mine well timbered, machinery in good condition.

December 15, 1900.—Inspected Thatcher mine. Air intake, 36,000 cubic feet per minute, air well distributed to working faces. Forty-five men employed underground, working in two veins. Found roof of second right entry, on Diamond vein, in dangerous condition. Instructed that it be made safe. Machinery in good order. No gas; mine well timbered.

February 13, 1901.—Inspected Thatcher mine. Air intake through main slope 36,000 cubic feet per minute, plus air intake through air shaft, 6,000 cubic feet per minute; total, 42,000 cubic feet per minute entering mine. Seventy-one miners employed. Found that air circulation was very erratic, and air not properly distributed to supply miners at working faces with ample amount of air. Followed air from intake until defects in circulation were discovered, and instructed that the defects be remedied. No gas; mine well timbered. Machinery in good condition.

April 17, 1901.—Inspected Thatcher mine. Air intake, 33,600 cubic feet per minute. Eighty-five men employed underground. Air well distributed to working faces. No gas, mine well timbered. Machinery in good condition.

June 8, 1901.—Visited Thatcher mine. Mine not in operation. Inspected machinery, cars, cable, etc. Found same in good condition.

OTERO MINE.

The Otero mine is located about 2½ miles in an easterly direction from the town of Gallup, McKinley County, N. Mex. It adjoins the Thatcher mine, and is owned by the Caledonian Coal Company, Alex. Bowie, general manager; John Stewart, superintendent. A spur connects the mine with the main line of the Santa Fe Pacific Railroad. Four coal seams of workable thickness are known in the property, viz, Crown Point, Thatcher, Black Diamond, and Otero. Three of these veins are worked through the Otero mine, viz, Crown Point, Thatcher, and Otero. The system of working is by slope, double entry, room, and pillar. The mine is ventilated by a Crawford and McCrimmon 12-foot fan. Five steam engines are in use at the mine, viz: Hoisting engine, 50 horsepower; blower, 25 horsepower; fan, 16 horsepower; 2 pump engines, 10 horsepower each. Depth of slope, 1,250 feet; dip of coal vein, 2 to 8 per cent. Kind of coal, lignite; thickness of vein, 5 feet. Total output for fiscal year, 25,338 tons; amount used in operating mine, 900 tons; net product, 24,438 tons. Average number of men employed underground, 88; number of days mine worked, one hundred and thirty. The coal is marketed on Santa Fe Pacific Railroad and connecting branch lines.

RECORD OF INSPECTION.

April 19, 1901.—Inspected Otero mine. Air intake, 19,200 cubic feet per minute. Air well distributed to working faces. Fifty men employed underground. No gas. Mine well timbered. Machinery in safe condition.

June 8, 1901.—Visited Otero mine. Mine not in operation—not running continuously.

Prices paid for labor, mining coal, etc., by the Caledonian Coal Company, on the Thatcher and Otero mines at Gallup, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 54 inches.

Mining coal, per ton of 2,000 pounds, mine run, 62 cents.

Driving main entry, per yard, \$1.50 single, \$2 double.

Narrow work, per yard, \$1.50.

Driving main slope when in natural coal, per yard, \$2 if double, \$1.50 if single.

Turning rooms, \$6.

Wages paid:

Track layers, per day	\$3.00
Company timbermen, per day	3.00
General company men, per day	3.00
Company men underground, per day	3.00
Single mule drivers, per day	3.00
Rope riders, per day	3.00
Boys attending to doors, per day	1.00
Stable boss, per day	2.00
Engineers, per month	85.00
Boilermen, per day	2.00
Weighmen, per day	3.00
Tipplemen, per day	2.00
Blacksmiths, per day	3.00
Blacksmiths' helpers, per day	2.00
Carpenters, per day	3.00
Deductions:	
Doctors, per month	1.00
Hospital, per month	25-.50

ROCKY CLIFF MINE.

The Rocky Cliff mine is situated about 2 miles in an easterly direction from the town of Gallup, McKinley County, N. Mex. It is owned and operated by Stephen Canavan. Kind of coal, lignite; thickness of vein, 4½ feet; total output for fiscal year, 26,400 tons; estimated value of output, \$35,640; average number of men employed outside, 3; average number of men employed underground, 65; number of days mine worked, one hundred and thirty-two; length of slope, 1,000 feet; value of improvements during fiscal year, \$3,000. The coal is marketed in New Mexico, Arizona, and California. Operations were suspended on this mine about five months during the fiscal year on account of a strike.

RECORD OF INSPECTION.

December 20, 1900.—Inspected Rocky Cliff mine. Air intake, main slope, 6,240 cubic feet per minute, plus intake through escape shaft, 1,820 cubic feet per minute; total intake, 8,060 cubic feet per minute. Fifty miners employed. Air not very well distributed to working faces. Instructed that additional timbers be placed in several rooms on second left entry and in room left of bottom of main slope. No gas.

February 12, 1901.—Visited Rocky Cliff mine, but found operations suspended, as miners had been called out by the Miners' Union, the members of which were on a strike against the Colorado Fuel and Iron Company, which company contracts for the purchase of the product of the Rocky Cliff mine.

June 5, 1901.—Inspected Rocky Cliff mine. Only three men at work, drawing pillars. Ventilation good. No gas. Mine well timbered.

UNION MINE.

This mine is located about 1½ miles south of the town of Gallup, McKinley County, N. Mex. It is owned and operated by the Union Coal Company, John C. Spears, president; William McVickers, manager. Three coal seams of workable thickness are known to exist in the company's ground. The seams are known as the Aztec, Black Diamond, and Thatcher veins. The depths of these seams from the surface at which these coal seams occur, are respectively as follows: Thirty-five feet, 320 feet, and 360 feet. These seams outcrop in the canyon half a mile distant from the Union mine. The thickness of the beds are as follows: Aztec, 5 feet 4 inches; Black Diamond, 6 feet 6 inches, and Thatcher, 5 feet 8 inches. The Union Company is operating upon the Black Diamond seam. The mine is opened by slope, double entry, room, and pillar system. Depth of slope, 1,000 feet; dip of coal seam, 14 degrees; kind of coal, lignite; total output for fiscal year, 8,000 tons; refuse slack was used for steaming purposes at mine; estimated value of output at mine, \$13,200; average number of men employed outside, 2; average number of men employed underground, 10; average number of boys employed underground, 2; number of days mine worked during fiscal year, two hundred and fifty. The product is marketed in California, Arizona, and New Mexico. This mine has a much greater capacity for production than has been reached; but transportation facilities are inadequate, as the coal must be hauled in wagons to railroad at Gallup. The mine is ventilated by a furnace shaft. A 20-horsepower steam engine supplies the power for hoisting. A new slope was sunk to a depth of 600 feet during the past year.

RECORD OF INSPECTION.

October 22, 1900.—Inspected Union mine. Air intake, 3,640 cubic feet per minute. Air well distributed to working faces. Seven miners employed. No gas, mine well timbered, machinery in good condition.

December 13, 1900.—Inspected Union mine. Air intake, 4,000 cubic feet per minute. Air well distributed to working faces. Seven miners employed. No gas, mine well timbered, machinery in safe condition.

February 9, 1901.—Inspected Union mine. Air intake, 7,500 cubic feet per minute. Air well distributed to working faces. Seven miners employed. No gas, mine well timbered, machinery in safe condition.

April 12, 1901.—Inspected Union mine. Air intake, 3,600 cubic feet per minute. Air well distributed to working faces. Twelve men employed underground. Mine well timbered, no gas, machinery in good condition.

June 6, 1901.—Inspected Union mine. Air intake, 7,000 cubic feet per minute. Air traveling to all working faces. Ten men employed underground. Mine well timbered, no gas, machinery in good condition.

Prices paid for labor, mining coal, etc., by the Union Coal Company on the Union mine at Gallup, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 6 feet 6 inches.
 Mining coal, per ton of 2,400 pounds, mine run, 70 cents.
 Mining coal, per ton of 2,000 pounds, screened coal, 62 cents.
 Driving main entry, per yard, \$2.
 Driving back entry, per yard, \$1.50.
 Narrow work, per yard, \$1.50.
 Driving crosscuts, per yard, \$1.50.

Driving main slope when in natural coal, per yard, \$2.
 Driving main slope when in faults or solid rock, per day, \$3.
 Turning rooms, \$4.

Wages paid:

Pit bosses, per month.....	\$90.00
Track layers, per day.....	3.00
Company timbermen, per day.....	3.00
General company men, per day.....	3.00
Company men underground, per day.....	3.00
Assistants to company men, per day.....	2.50
Rope riders, per day.....	3.00
Engineers, per day.....	3.00
Weighmen, per day.....	3.00

Prices of powder and supplies for miners at the Union mine.

Powder, per keg:	
From June, 1900, to January, 1901.....	\$4.00
From January, 1901, to date.....	2.50
Lamp oil, per gallon:	
From June, 1900, to January, 1901.....	1.20
From January to date.....	.75
Lamp cotton, per ball.....	.05
Squibs, per box.....	.25
Deductions:	
Doctors per month.....	1.00

STEWART MINE.

This mine is located 1 mile north of the town of Gallup, McKinley County, N. Mex.; owned by the Santa Fe Pacific Railway Company, and is operated under lease by William Stewart. Kind of coal, lignite; thickness of vein, 6 feet; total output, fiscal year ending June 30, 1901, 6,000 tons; estimated value, \$10,000. Depth of drift, 1,000 feet. Average number of men employed outside 2; average number of men employed inside, 10. Number of days mine worked during year, three hundred. The coal is marketed in Arizona, California, and New Mexico. Ventilation by furnace shaft. Capacity for production, 50 tons per day. The mine is upon the Black Diamond vein, which is said to be lowest vein of the Gallup coal measures of sufficient size to be of commercial value. The coal is a lignite of superior grade.

RECORD OF INSPECTION.

February 12, 1901.—Inspected Stewart mine. Air intake, 9,000 cubic feet per minute. Ten miners employed. Air well distributed to working faces. No gas; mine well timbered.

April 13, 1901.—Inspected Stewart mine. Air intake, 5,400 cubic feet per minute. Ten miners employed; air well distributed. Found two rooms without sufficient timbers. Instructed that necessary timbers be set. Mine generally well timbered; no gas; ventilation fair.

June 7, 1901.—Inspected Stewart mine. Air intake, 8,000 cubic feet per minute. Air well distributed. Ten miners employed. No gas; mine well timbered.

RIO ARRIBA COUNTY.

MONERO MINE NO. 1.

Monero mine No. 1 is located at Monero, Rio Arriba County, N. Mex., on the Denver and Rio Grande Railroad. It is owned and operated by the Rio Arriba Coal Company, J. H. Crist, general manager and superintendent, with office at Monero, N. Mex. The coal is an extra good quality of bituminous coal, an especially good coal for both steam and domestic use. There are three workable veins in this coal field, of the following thickness, respectively: Four feet, 3 feet 8 inches, and 3 feet. The Monero mine is opened by slopes, cross entries, and rooms. A slope has been driven 1,600 feet in depth upon the 4-foot seam, and another slope 600 feet in depth upon the 3 feet 8 inch seam. The coal seams dip at angle of 7 per cent toward the

west. Until quite recently two slopes were operated upon this property, the mines being known as Monero No. 1 and Monero No. 2; but the mines are now connected by underground workings and both mines are operated through Monero No. 1 slope, No. 2 slope being utilized for purposes of ventilation. Total output for fiscal year, 35,400 tons; used in operating mine, 400 tons; net product, 35,000 tons; estimated value of output at mine, \$48,000. Average number of men employed outside, 8; average number of men employed underground, 40; average number of boys employed underground, 3. Number of days mine was operated, two hundred and eighty-five. The product of the mine is nearly all sold to the Denver and Rio Grande Railroad and is used by the railroad company. A small percentage of the product is sold in Santa Fe, San Luis Valley, and neighboring towns. This mine shows an increase in production over previous fiscal year of 13,000 tons and an increase in value of product amounting to \$20,000. The demand for this coal was far in excess of the supply. The production was restricted by scarcity of miners. The power for hoisting is supplied by a 45-horsepower double-cylinder steam engine.

RECORD OF INSPECTION.

October 18, 1900.—Inspected Monero No. 1 mine. Air intake, 2,550 cubic feet per minute; 21 men employed underground. Ventilation weak; instructed that it be improved. Mine safely timbered; no gas.

December 10, 1900.—Inspected Monero No. 1 mine. Air intake, 2,960 cubic feet per minute; air not well distributed to working faces; crosscuts too far back from working faces, but haste being made to put them through. Mine not properly timbered. Instructed that additional timbers be placed in all rooms. Very small feeder of CH₄ venting into right entry. Instructed that it be carefully watched, that no accumulation should follow. A crosscut is being driven from No. 1 mine to No. 2 mine that will improve the ventilation throughout both mines when completed.

February 20, 1901.—Inspected Monero No. 1 and No. 2 mines. Air intake, 8,920 cubic feet per minute. Thirty men employed underground. Mine well timbered; no gas; ventilation good. Underground connection made between No. 2 and No. 1 mines, both being worked as one through No. 1 slope.

April 24 and 25, 1901.—Inspected Monero mines No. 1 and No. 2. Air intake, 5,400 cubic feet per minute. Thirty men underground. Found air badly distributed. Instructed that air be carried to working faces, and maintain better current of air traveling.

In room No. 5 Edward Norton demurred to putting in timbers, although he had an area of 30 by 20 feet of roof without timber. Instructed Pit Boss Louis Confar to suspend operation of said room until same was properly timbered. Called attention of manager and also of engineer in charge of machinery to the cable, which is old, worn, and defective; also to the dangerous custom of several miners riding up and down on trip, depending on this defective cable. Was told that new cable would be substituted for defective part.

June 20 and 21, 1901.—Inspected Monero mines Nos. 1 and 2. Air intake, 6,000 cubic feet per minute; circulation poor; air badly distributed. Twenty-five men employed underground. Instructed that ventilation be improved, and that new cable be substituted for defective part, which was done. Instructed that additional timbers be put in all rooms. No gas.

October 17, 1900.—Inspected Monero mine No. 2. Air intake, 2,310 cubic feet per minute. Ten miners, 3 boys, and 2 drivers employed underground. Timbering good; ventilation fair; no gas.

December 6, 1900.—Inspected Monero No. 2 mine. Air intake, 3,795 cubic feet per minute. Eleven miners and 2 drivers employed underground. Found dangerous roof in main slope just above first right entry; instructed that it be made safe. No gas. Mine generally well timbered. Ventilation weak at working faces, but air good. Soon after this visit of inspection No. 2 mine and No. 1 mine were connected by workings underground and both mines operated as one through No. 1 slope.

Prices paid for labor, mining coal, etc., by the Rio Arriba Coal Company on the Monero mines at Monero, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 3 feet and 8 inches.

Mining coal, per ton of 2,000 pounds, screened coal, 65 cents.

Driving main entry, per yard, \$2.

Driving main slope when in natural coal, per yard, \$4.

Turning rooms, 1 keg powder, \$3.10.

Wages paid:

Pit bosses, per day	\$3.00
Track layers, per day	3.00
General company men, per day, inside	3.00
Company men underground, per day	3.00
Single mule drivers, per day	3.00
Rope riders, per day	3.00
Engineers, per day	3.00
Weighmen, per day	2.25
Tipple men, per day	2.00
Blacksmiths, per day	3.00
Carpenters, per day	3.00

Prices of powder and supplies for miners at the Monero mine.

Powder, per keg	\$3.10
Lamp oil, per gallon .....	.75
Lamp cotton, per ball .....	.10
Squibs, per box .....	.25
Deductions:	
Doctors, per month	1.00
Blacksmithing, per month	1.00
House rent, 2 rooms, per month	5.00
House rent, 3 rooms, per month	5.00
House rent, 4 rooms, per month	6.00

KUTZ MINE.

The Kutz mine is located at Monero, Rio Arriba County, N. Mex. It is owned and operated by George W. Kutz & Co.; George W. Kutz, superintendent, address, Lumberton, Rio Arriba County, N. Mex. Kind of coal, bituminous; thickness of vein, 3½ feet; total output for fiscal year, 15,000 tons; estimated value of output, \$20,000; depth of slope, 600 feet; average number of men employed underground, 10; average number of men employed outside, 3; number of days mine operated during fiscal year, three hundred and ten. Product sold in San Luis Valley, Colorado, and adjacent towns.

RECORD OF INSPECTION.

October 16, 1900.—Inspected Kutz mine. Air intake 2,873 cubic feet per minute; six miners employed underground. Found all openings safely timbered; no gas; ventilation weak. Found that the instruction given by Mine Inspector J. W. Fleming, August 24, 1900, "to keep a drill hole ahead of workings in first right entry, to guard against danger from a body of CH₄ supposed to exist in abandoned workings of Monero No. 2 mine," had not been followed. The manager, Mr. George W. Kutz, promised to follow instructions in future.

December 7, 1900.—Inspected Kutz mine. Air intake 3,112 cubic feet per minute; nine miners employed underground; air current weak at working faces, but air fresh; no gas; mine well timbered.

February 21, 1901.—Inspected Kutz mine. Air intake 5,100 cubic feet per minute; twelve miners employed; ventilation fair; no gas; mine generally well timbered.

April 26, 1901.—Inspected Kutz mine. Air intake 3,060 cubic feet per minute; eleven men employed underground; air good at working faces; no gas; mine well timbered.

June 19, 1901.—Inspected Kutz mine. Could get no register on anemometer. No fire in furnace shaft which furnishes ventilation. Only three men at work underground. No air traveling in mine. Instructed that a fire be kept burning in furnace when men at work in mine, and that ventilation be improved. Instructed that additional timbers be placed in rooms in operation. No gas.

McBROOM MINE.

This mine is located about 1½ miles, in an easterly direction, from the town of Monero, Rio Arriba County, N. Mex. Owned and operated by the McBroom Brothers; James W. McBroom, general manager, Monero, N. Mex. Kind of coal, bituminous; thickness of vein, 3 feet; total output for fiscal year, 1,200 tons; estimated value of output, \$1,800; length of drift, 200 feet; value of improvements,

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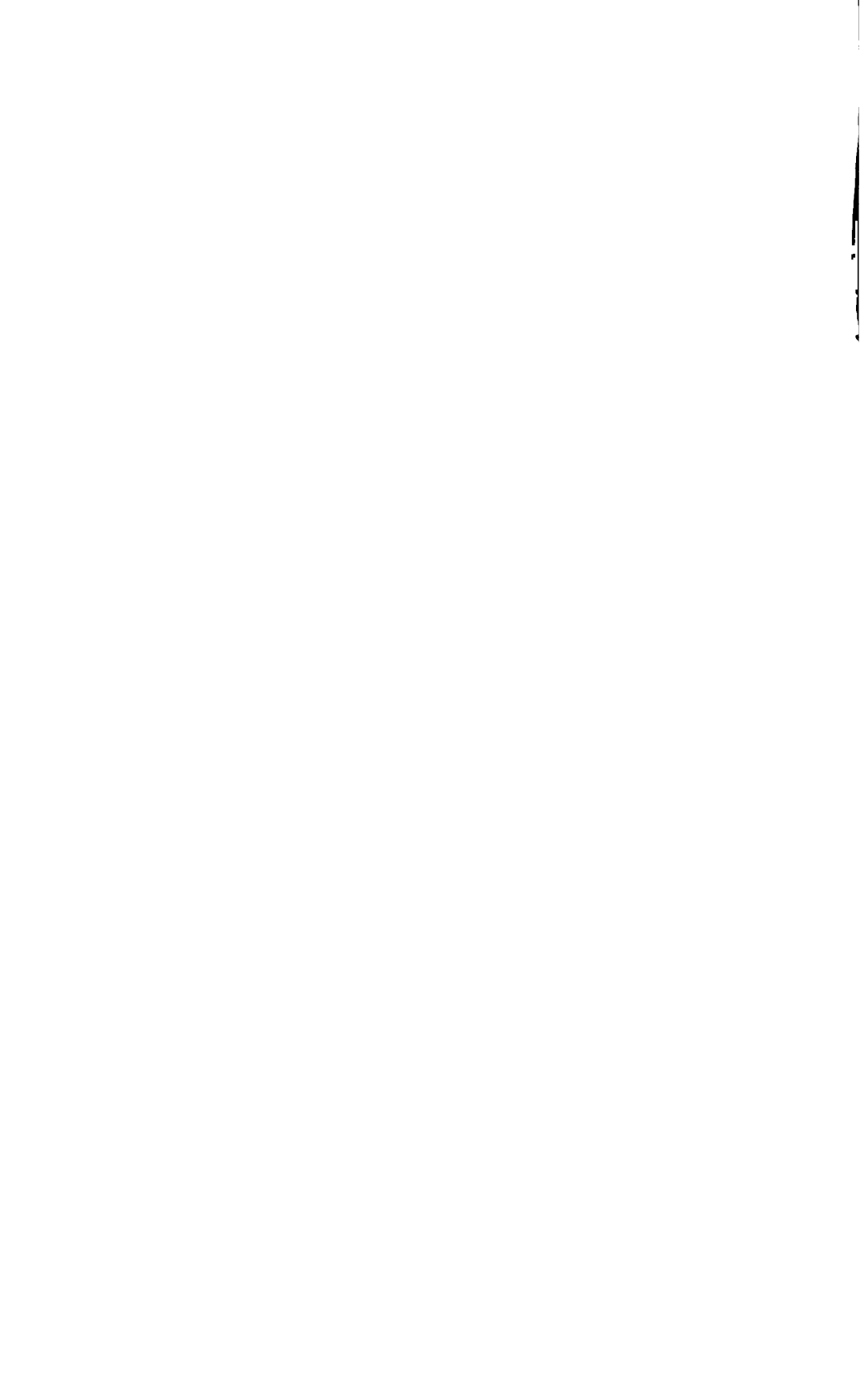
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VIEW OF MADRID, N. MEX., SHOWING HARD COAL BREAKER AND POWER HOUSE PLANT, FOR COOK & WHITE AND LUCAS MINES.

\$1,200; number of men employed outside, 1; number of men employed inside, 3; where coal is marketed, Creed, Colo., and New Mexico; number of days mine worked, one hundred and fifty.

SANTA FE COUNTY.

The coal measures of Santa Fe County merit and have attracted more attention than the coal fields of any other county in New Mexico. This is due, not to the extraordinary extent of the coal beds, but to the peculiar geological conditions which there prevail. In the immediate vicinity of the town of Madrid are found strange and anomalous coal beds. The bituminous and anthracite coals occur in juxtaposition in the same coal seam. The younger coal seams of the series are sometimes highly metamorphosed and anthracited while the older veins have not passed the bituminous stage. In some instances a part of a coal vein may be anthracite while a few hundred yards distant laterally, the same vein may produce bituminous coal. The geological peculiarities of these coal measures are due to the action of intrusive sheets of porphyrite, the near approach of which in places furnish the agency for local metamorphism of the coal measures, thus producing the anthracite coal here found.

The coal produced from the Cerrillos bituminous (Cook & White) mine has until recently been a noncoking coal, but a few months ago it was found that at a depth of about 2,600 feet, in the slope, the coal had changed to a very good coking coal. This change would indicate the nearer approach to one of the intrusive sheets, and the possible change from bituminous to anthracite coal as closer approach is made to the intrusion.

The principal mines of the district are the Cerrillos bituminous, formerly known as the Cook & White, and the Cerrillos anthracite, formerly called the Lucas mine.

CERRILLOS BITUMINOUS.

This mine, formerly called the Cook & White, is situated at the town of Madrid, 3 miles south of Los Cerrillos station on the Atchison, Topeka and Santa Fe Railroad. The mine is owned and operated by the Colorado Fuel and Iron Company, J. A. Kebler, general manager; H. J. Elliott, superintendent. The mine is opened by a slope 2,800 feet in depth, driven at an angle of 15 degrees, the direction of dip of the coal seam. Main entries or levels are driven from the main slope at intervals of 600 feet, and these entries are intersected by planes driven to the raise and on the dip, parallel to the main slope and at intervals of 600 feet as the entries depart from the main slope. Thus the field is blocked into 600 foot squares. Back entries are driven parallel to main entry and cross entries connect the main and back entries, maintaining a thorough system of ventilation. From the dip and raised planes rooms are turned, 300 feet in length by 20 feet in width, a pillar of 30 feet being carried between rooms. This pillar is taken out in retreating, after the rooms from planes have made junction at the middle between two planes. Compressed-air engines hoist the product from the dip planes, or it is lowered by gravity to the entry below as soon as connection is made with the rooms above, whichever may be found most convenient and economical. The mine is ventilated by two exhaust fans 14 and 16 feet, respectively, located upon fan shafts connecting with and exhausting from the extremities of the lateral openings from the main slope; the main slope is the intake, the air splitting at or near the bottom. The mines of this camp are the only mines of New Mexico in which CH_4 is found in sufficient quantity to be very dangerous, but so efficient has been the methods of ventilation employed under the present management and so carefully is it guarded that these mines are as safe as if no gas were present. And they will so continue to be as long as the same vigilance is exercised as now. The mine is equipped with a first-class hoisting plant, with 300-horsepower Corliss engine. Two large Ingersoll air compressors furnish the power for the smaller engines in use underground. The town of Madrid has a population of over 1,000, the majority of the men being employed in and about the mines, while many of the boys find employment as drivers, trappers, and slate pickers at the anthracite breaker of the Cerrillos anthracite mine. The town has a public hall, excellent school, two churches, and a general mercantile establishment owned by the company. The Cerrillos bituminous mine produces an excellent quality of bituminous coal; thickness of vein $3\frac{1}{2}$ feet; total output for fiscal year 75,295 tons; amount used in operating mine 7,300 tons; net product 64,362 tons. Average number of men employed outside 24; average number of men employed underground 66; average

number of boys employed underground 4; number of days mine was operated during fiscal year two hundred and ninety-eight. The product is marketed in New Mexico, Arizona, and California.

RECORD OF INSPECTION.

October 3 and 4, 1900.—Inspected Cerrillos bituminous mine. Found hoisting engines, fan engines, cables, all machinery, and safety lamps in safe condition. Air intake, 39,200 cubic feet per minute. One hundred men employed underground; air well distributed. Made safety-lamp tests at all points where accumulations of CH₄ were likely to be found, but got no cap. Found CH₄ venting into bottom of slope and small feeders at several other places in mine, but gas was immediately diluted far beyond danger point and expelled by strong circulation of air. Mine safely timbered. Ventilation very good.

November 17 and 19, 1900.—Inspected Cerrillos bituminous mine. Air intake, 45,500 cubic feet per minute. Forty-five men employed underground; air well distributed to working faces. Found machinery, cables, and safety lamps all in safe condition. Mine well timbered; ventilation very good.

January 16, 1901.—Inspected Cerrillos bituminous mine. Air intake, 44,100 cubic feet per minute. Eighty-seven men employed underground; air well distributed; no standing gas. Mine well timbered; ventilation very good.

February 26, 1901.—Inspected Cerrillos bituminous mine. Air intake, 45,500 cubic feet per minute. One hundred men employed underground; air well distributed. Found CH₄ venting into mine in small quantities at several places, but immediately dispelled by strong air currents. Mine well timbered.

March 28, 1901.—Inspected Cerrillos bituminous mine. Air intake, 45,500 cubic feet per minute. Sixty-five men employed underground; air well distributed. Found CH₄ venting into bottom of main slope and into second dip plane, but immediately dispelled by strong air currents. Mine well timbered; ventilation very good.

May 14 and 15, 1901.—Inspected Cerrillos bituminous mine. Found machinery, cable, safety lamps, etc., in good condition. Air intake, 43,500 cubic feet per minute. Eighty men employed underground; air well distributed except at bottom of main slope, where only 1,800 cubic feet per minute was traveling and small quantity of CH₄ venting into slope. Considering that too little air was traveling at bottom of slope, called attention of superintendent to same and instructed that air current be increased at that point. Mine well timbered.

June 25 and 27, 1901.—Inspected Cerrillos bituminous mine. Found only one of double hoisting engines in use on account of main shaft of other engine being crystallized and broken. Found excessive loads being hauled with single engine. Air intake, 34,575 cubic feet per minute. Ninety men employed underground; air generally well distributed, but found CH₄ in bottom of second dip plane from second right entry. Instructed that brattice be carried closer to bottom of plane. Mine well timbered and in general safe condition.

Prices paid for labor, mining coal, etc., by the Colorado Fuel and Iron Company on the Cerrillos bituminous mine at Madrid, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 42 inches.

Mining coal, per ton of 2,400 pounds, mine run, 70 cents. (Commencing July 1, 1901, rates are 70, 75, and 80 cents for 2,400 pounds, run of mine; the different prices in accord with difference in thickness of coal.)

Driving main entry, per yard, \$3.

Driving back entry, per yard, \$1.75.

Driving crosscuts, per yard, \$1.50, run of mine, and \$2 entry.

Driving main slope when in natural coal, per yard, \$6.

Driving raised planes, per yard, \$2.25.

Turning rooms, \$8 each.

Setting rough 7-foot timbers, \$1.

Setting timbers over 9 feet in length, \$2.

Wages paid:

Pit bosses, per month	\$100.00
Fire bosses, per day	3.00
Track layers, per day	2.75
Company timbermen, per day	2.75
General company men, per day	1.50-2.00

Wages paid—Continued.

Company men underground, per day	\$2.75
Single mule drivers, per day	2.60
Team drivers, per day	2.75
Rope riders, per day	2.80
Car couplers, per day	1.50
Boys attending to doors, per day	1.00
Stable boss, per day	2.00
Engineers, per day	3.00
Boiler men, per day	2.00
Weighmen, per month	75.00
Tipple men, per day	1.50
Blacksmiths, per day	3.00
Blacksmiths' helpers, per day	2.50
Carpenters, per day	3.00

Prices of powder and supplies for miners at the Cerrillos bituminous mine.

Powder, per keg	\$2.60
Lamp oil, per gallon .....	.75
Lamp cotton, per ball .....	.05
Squibs, per box .....	.25
Deductions:	
Blacksmithing, per month .....	.50
Hospital, per month	1.00
House rent, per month, 2 rooms	2.00
House rent, per month, 3 rooms	6.00
House rent, per month, 4 rooms and 5 rooms	10.00

CERILLOS ANTHRACITE.

This mine, formerly known and described in United States mine inspector's reports as the Lucas mine, adjoins the Cerrillos bituminous mine, hereinbefore described as to location. The Cerrillos anthracite mine is operating upon a coal bed overlying the Cerrillos bituminous seam, being separated by strata of sandstone of about 150 feet in thickness. On top of the Cerrillos anthracite coal, and separated from it by sandstone strata 30 or 40 feet in thickness, is found the cause of the metamorphism of this coal bed, viz, an intrusive sheet of porphyrite about 350 feet in thickness. On top of this intrusive sheet and only separated by a high stratum of sandstone another seam of anthracite coal is found, 4 feet 2 inches in thickness, which is operated in the Anthracite B. No. 33 mine. These coal veins produce anthracite coal equal in quality to the best produced in Pennsylvania.

The Cerrillos anthracite mine is owned and operated by the Colorado Fuel and Iron Company; J. A. Kebler, general manager; H. J. Elliott superintendent. The method of mining is similar to the system described in the foregoing article upon the Cerrillos bituminous mine—slope with two back slopes, double cross entries, room, and pillar. The mine is ventilated by a double, 6-foot, Murphy exhaust fan, located upon the north side of the main slope, the air intake being through main slope, splitting near the bottom, the air from the south side of slope returning through an overcast cross slope to the return air way on the south side. The mine is equipped with a first-class hoisting plant. The breaker plant, where the coal is broken and assorted into the various sizes—grate, egg, stove, nut, and pea—is one of the most complete to be found anywhere. The building is 10 stories in height, the dimensions being 250 feet long, 60 feet wide, and 110 feet high, the top of the breaker being on a level with the mouth of the slope. Storage bins for each of the several sizes of coal are provided at the level of the railroad cars, which are loaded therefrom. These bins have a capacity of 75 tons each.

The coal seam is 3 feet thick; dip of vein, 15°; depth of slope, 2,600 feet. Total output for fiscal year, 39,748 tons; estimated value at mine, \$90,077. Average number of men employed outside, 14; average number of boys employed outside, 20 (slate pickers at breaker); average number of men employed inside, 35; average number of boys employed inside, 2. Number of days mine worked, two hundred and ninety-six. The product is marketed in New Mexico, Arizona, California, Colorado, and Kansas.

RECORD OF INSPECTION.

October 5, 1900.—Inspected Cerrillos anthracite mine. Air intake, 14,160 cubic feet per minute. Forty-three men employed underground. Small feeder of CH₄ venting at bottom of slope, but immediately expelled by strong air current. Mine well timbered. Machinery, cable, etc., in safe condition.

November 20, 1900.—Inspected Cerrillos anthracite mine. Air intake, 24,400 cubic feet per minute. Forty-four men employed underground; air well distributed. Mine well timbered; ventilation very good; machinery and cables in good condition.

January 17, 1901.—Inspected Cerrillos anthracite mine. Air intake, 7,680 cubic feet per minute. Forty-seven men employed underground. While the air was well distributed, yet volume of air was small and current necessarily weak, especially so in a mine which produces CH₄, even though in small volume. No standing gas in any of the workings. Called attention of superintendent and pit boss to the weak ventilation. On the following day again gave attention to the ventilation of this mine and discovered that the boiler for fan engine was defective. Instructed that it be replaced by a good boiler, which was done. Mine well timbered, and in good condition otherwise than defect quoted above.

March 27, 1901.—Inspected Cerrillos anthracite mine. Air intake, 16,320 cubic feet per minute. Forty men employed underground; air well distributed. Instructed that crosscut, between second and third rooms on sixth right entry, be enlarged for better ventilation. Mine well timbered; no standing gas; ventilation good.

May 16, 1901.—Inspected Cerrillos anthracite mine. Air intake, 22,000 cubic feet per minute. Thirty-eight men employed underground; air well distributed. Found fire in gob above top air course to seventh right entry. Remained until fire was put out and burning gob removed. Mine well timbered; no standing gas; ventilation very good.

June 26, 1901.—Inspected Cerrillos anthracite mine. Air intake, 10,800 cubic feet per minute. Forty-eight men employed underground; air well distributed. Mine well timbered; no standing gas; ventilation good; machinery in safe condition.

Prices paid for labor, mining coal, etc., by the Colorado Fuel and Iron Company on the Cerrillos anthracite and Anthracite B. No. 33 mines, at Madrid, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 36 inches.

Mining coal, per ton of 2,400 pounds, mine run, 90 cents.

Driving main entry, per yard, \$3.

Driving back entry, per yard, \$2.25.

Driving room crosscuts, per yard, \$1.50; entry crosscuts, \$2.

Driving main slope when in natural coal, per yard, \$6.

Driving main slope when in faults or solid rock, per yard, \$20.

Driving raised planes, per yard, \$2.25.

Turning rooms, \$8 each.

Setting rough 7-foot timbers, \$1.

Setting timbers over 9 feet in length, \$2.

Wages paid:

Pit bosses, per month.....	\$100.00
Fire bosses, per day.....	3.00
Track layers, per day.....	2.75
Company timbermen, per day.....	2.75
General company men, per day.....	1.50-2.00
Company men underground, per day.....	2.75
Assistants to company men, per day.....	None.
Single mule drivers, per day.....	2.60
Team drivers, per day.....	2.75
Rope riders, per day.....	2.80
Car couplers, per day.....	1.50
Boys attending to doors, per day.....	1.00
Stable boss, per day.....	2.00
Engineers, per day.....	3.00
Boiler men, per day.....	2.10
Weighmen, per month.....	75.00
Tipple men, per day.....	1.50
Blacksmiths, per day.....	3.00
Blacksmiths' helpers, per day.....	None.
Carpenters, per day.....	3.00

Prices of powder and supplies for miners at the above mines.

Powder, per keg.....	\$2.60
Lamp oil, per gallon.....	.75
Lamp cotton, per ball.....	.05
Squibs, per box.....	.25
Deductions:	
Blacksmiting, per month.....	.50
Hospital, per month.....	1.00
House rent, 2 rooms, per month.....	2.00
House rent, 3 rooms, per month.....	6.00
House rent, 4 and 5 rooms, per month.....	10.00

ANTHRACITE B. NO. 33 MINE.

The Anthracite B. No. 33 mine is located about 1½ miles southeast of the town of Madrid, Santa Fe County, N. Mex. A brief description of some of its geological features is given in the preceding article upon the Cerrillos anthracite mine. The mine is owned and operated by the Colorado Fuel and Iron Company, J. A. Kebler, general manager; H. J. Elliott, superintendent. The mine is opened by tippie slopes, double-cross entrys, room, and pillar systems. Ventilated by Murphy exhaust fan. Compressed air is used for haulage in main slope. Thickness of vein, 4 feet; dip of vein, 9°; depth of slope, 420 feet. Total output for fiscal year, 1,516 tons; average number of men employed outside, 2; average number of men employed underground, 14. The mine has worked intermittently, only prospect work being done. The coal produced is an excellent quality of anthracite. A 40-pound rail tramway, about 1 mile in length, was built to connect the mine with the breaker on the Cerrillos bituminous mine; hoisting plant and fan installed at a total cost of about \$20,000. This is a new mine, opened during the past fiscal year.

RECORD OF INSPECTION.

November 16, 1900.—Inspected Anthracite B. No. 33 mine. Instructed that care be exercised to guard against encountering accumulation of fire damp in reopening old workings on this mine.

January 18, 1901.—Inspected Anthracite B. No. 33. Found mine safely timbered; no gas; ventilation very good.

February 27, 1901.—Inspected Anthracite B. No. 33. Good natural ventilation; 7 men employed underground; mine well timbered; no gas.

March 26, 1901.—Inspected Anthracite B. No. 33 mine. Found mine in safe condition. Made personal investigation of fatal accident which occurred on 22d instant, by which John G. Hold was killed. Believe the accident to have been the result of carelessness on the part of a fellow-employee named Robert Waters, and also due in a great measure to the carelessness of deceased in remaining in an exposed place, making a cartridge upon the main slope, having been warned beforehand and forbidden to do so. (See fatal-accident reports.)

May 18, 1901.—Inspected Anthracite B. No. 33 mine. Air intake, 18,240 cubic feet per minute. Eleven men employed underground. Air well distributed. A new Murphy exhaust fan put in place since last inspection. All machinery, cable, etc., in good condition. Mine well timbered; no gas; ventilation very good.

June 28, 1901.—Inspected Anthracite B. No. 33 mine. Air intake, 22,000 cubic feet per minute. Ten men employed underground. Air well distributed. Found some bad top in first right entry; instructed that it be timbered. No gas; ventilation very good; mine generally well timbered.

BLOCK COAL MINE.

This mine is located about 16 miles east of Madrid, Santa Fe County, N. Mex., and is reached by wagon road from that place or by road from Ortiz station, on the Atchison, Topeka and Santa Fe Railroad, in Santa Fe County, N. Mex.

The mine is owned and operated by the Block Coal Company, J. T. McLaughlin, general manager; address San Pedro, Santa Fe County, N. Mex. This mine was formerly known as the Omara mine. Kind of coal, bituminous; thickness of coal seam, 3 feet to 6 feet; depth of slope No. 1, 300 feet; slope No. 2, 200 feet. Total output for fiscal year, 2,400 tons; value at mine, \$4,800; average number of men

Driving main slope when in natural coal, per yard, \$2.
 Driving main slope when in faults or solid rock, per day, \$3.
 Turning rooms, \$4.

Wages paid:

Pit bosses, per month.....	\$90.00
Track layers, per day.....	3.00
Company timbermen, per day.....	3.00
General company men, per day.....	3.00
Company men underground, per day.....	3.00
Assistants to company men, per day.....	2.50
Rope riders, per day.....	3.00
Engineers, per day.....	3.00
Weighmen, per day.....	3.00

Prices of powder and supplies for miners at the Union mine.

Powder, per keg:	
From June, 1900, to January, 1901.....	\$4.00
From January, 1901, to date.....	2.50
Lamp oil, per gallon:	
From June, 1900, to January, 1901.....	1.20
From January to date.....	.75
Lamp cotton, per ball.....	.05
Squibs, per box.....	.25
Deductions:	
Doctors per month.....	1.00

STEWART MINE.

This mine is located 1 mile north of the town of Gallup, McKinley County, N. Mex.; owned by the Santa Fe Pacific Railway Company, and is operated under lease by William Stewart. Kind of coal, lignite; thickness of vein, 6 feet; total output, fiscal year ending June 30, 1901, 6,000 tons; estimated value, \$10,000. Depth of drift, 1,000 feet. Average number of men employed outside 2; average number of men employed inside, 10. Number of days mine worked during year, three hundred. The coal is marketed in Arizona, California, and New Mexico. Ventilation by furnace shaft. Capacity for production, 50 tons per day. The mine is upon the Black Diamond vein, which is said to be lowest vein of the Gallup coal measures of sufficient size to be of commercial value. The coal is a lignite of superior grade.

RECORD OF INSPECTION.

February 12, 1901.—Inspected Stewart mine. Air intake, 9,000 cubic feet per minute. Ten miners employed. Air well distributed to working faces. No gas; mine well timbered.

April 13, 1901.—Inspected Stewart mine. Air intake, 5,400 cubic feet per minute. Ten miners employed; air well distributed. Found two rooms without sufficient timbers. Instructed that necessary timbers be set. Mine generally well timbered; no gas; ventilation fair.

June 7, 1901.—Inspected Stewart mine. Air intake, 8,000 cubic feet per minute. Air well distributed. Ten miners employed. No gas; mine well timbered.

RIO ARRIBA COUNTY.

MONERO MINE NO. 1.

Monero mine No. 1 is located at Monero, Rio Arriba County, N. Mex., on the Denver and Rio Grande Railroad. It is owned and operated by the Rio Arriba Coal Company, J. H. Crist, general manager and superintendent, with office at Monero, N. Mex. The coal is an extra good quality of bituminous coal, an especially good coal for both steam and domestic use. There are three workable veins in this coal field, of the following thickness, respectively: Four feet, 3 feet 8 inches, and 3 feet. The Monero mine is opened by slopes, cross entries, and rooms. A slope has been driven 1,600 feet in depth upon the 4-foot seam, and another slope 600 feet in depth upon the 3 feet 8 inch seam. The coal seams dip at angle of 7 per cent toward the

west. Until quite recently two slopes were operated upon this property, the mines being known as Monero No. 1 and Monero No. 2; but the mines are now connected by underground workings and both mines are operated through Monero No. 1 slope, No. 2 slope being utilized for purposes of ventilation. Total output for fiscal year, 35,400 tons; used in operating mine, 400 tons; net product, 35,000 tons; estimated value of output at mine, \$48,000. Average number of men employed outside, 8; average number of men employed underground, 40; average number of boys employed underground, 3. Number of days mine was operated, two hundred and eighty-five. The product of the mine is nearly all sold to the Denver and Rio Grande Railroad and is used by the railroad company. A small percentage of the product is sold in Santa Fe, San Luis Valley, and neighboring towns. This mine shows an increase in production over previous fiscal year of 13,000 tons and an increase in value of product amounting to \$20,000. The demand for this coal was far in excess of the supply. The production was restricted by scarcity of miners. The power for hoisting is supplied by a 45-horsepower double-cylinder steam engine.

RECORD OF INSPECTION.

October 18, 1900.—Inspected Monero No. 1 mine. Air intake, 2,550 cubic feet per minute; 21 men employed underground. Ventilation weak; instructed that it be improved. Mine safely timbered; no gas.

December 10, 1900.—Inspected Monero No. 1 mine. Air intake, 2,960 cubic feet per minute; air not well distributed to working faces; crosscuts too far back from working faces, but haste being made to put them through. Mine not properly timbered. Instructed that additional timbers be placed in all rooms. Very small feeder of CH₄ venting into right entry. Instructed that it be carefully watched, that no accumulation should follow. A crosscut is being driven from No. 1 mine to No. 2 mine that will improve the ventilation throughout both mines when completed.

February 20, 1901.—Inspected Monero No. 1 and No. 2 mines. Air intake, 8,920 cubic feet per minute. Thirty men employed underground. Mine well timbered; no gas; ventilation good. Underground connection made between No. 2 and No. 1 mines, both being worked as one through No. 1 slope.

April 24 and 25, 1901.—Inspected Monero mines No. 1 and No. 2. Air intake, 5,400 cubic feet per minute. Thirty men underground. Found air badly distributed. Instructed that air be carried to working faces, and maintain better current of air traveling.

In room No. 5 Edward Norton demurred to putting in timbers, although he had an area of 30 by 20 feet of roof without timber. Instructed Pit Boss Louis Confar to suspend operation of said room until same was properly timbered. Called attention of manager and also of engineer in charge of machinery to the cable, which is old, worn, and defective; also to the dangerous custom of several miners riding up and down on trip, depending on this defective cable. Was told that new cable would be substituted for defective part.

June 20 and 21, 1901.—Inspected Monero mines Nos. 1 and 2. Air intake, 6,000 cubic feet per minute; circulation poor; air badly distributed. Twenty-five men employed underground. Instructed that ventilation be improved, and that new cable be substituted for defective part, which was done. Instructed that additional timbers be put in all rooms. No gas.

October 17, 1900.—Inspected Monero mine No. 2. Air intake, 2,310 cubic feet per minute. Ten miners, 3 boys, and 2 drivers employed underground. Timbering good; ventilation fair; no gas.

December 6, 1900.—Inspected Monero No. 2 mine. Air intake, 3,795 cubic feet per minute. Eleven miners and 2 drivers employed underground. Found dangerous roof in main slope just above first right entry; instructed that it be made safe. No gas. Mine generally well timbered. Ventilation weak at working faces, but air good. Soon after this visit of inspection No. 2 mine and No. 1 mine were connected by workings underground and both mines operated as one through No. 1 slope.

Prices paid for labor, mining coal, etc., by the Rio Arriba Coal Company on the Monero mines at Monero, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 3 feet and 8 inches.

Mining coal, per ton of 2,000 pounds, screened coal, 65 cents.

Driving main entry, per yard, \$2.

Driving main slope when in natural coal, per yard, \$4.

Turning rooms, 1 keg powder, \$3.10.

Wages paid:

Pit bosses, per day	\$3.00
Track layers, per day	3.00
General company men, per day, inside	3.00
Company men underground, per day	3.00
Single mule drivers, per day	3.00
Rope riders, per day	3.00
Engineers, per day	3.00
Weighmen, per day	2.25
Tippie men, per day	2.00
Blacksmiths, per day	3.00
Carpenters, per day	3.00

Prices of powder and supplies for miners at the Monero mine.

Powder, per keg	\$3.10
Lamp oil, per gallon .....	.75
Lamp cotton, per ball .....	.10
Squibs, per box .....	.25
Deductions:	
Doctors, per month	1.00
Blacksmithing, per month	1.00
House rent, 2 rooms, per month	5.00
House rent, 3 rooms, per month	5.00
House rent, 4 rooms, per month	6.00

KUTZ MINE.

The Kutz mine is located at Monero, Rio Arriba County, N. Mex. It is owned and operated by George W. Kutz & Co.; George W. Kutz, superintendent, address, Lumberton, Rio Arriba County, N. Mex. Kind of coal, bituminous; thickness of vein, 3½ feet; total output for fiscal year, 15,000 tons; estimated value of output, \$20,000; depth of slope, 600 feet; average number of men employed underground, 10; average number of men employed outside, 3; number of days mine operated during fiscal year, three hundred and ten. Product sold in San Luis Valley, Colorado, and adjacent towns.

RECORD OF INSPECTION.

October 16, 1900.—Inspected Kutz mine. Air intake 2,873 cubic feet per minute; six miners employed underground. Found all openings safely timbered; no gas; ventilation weak. Found that the instruction given by Mine Inspector J. W. Fleming, August 24, 1900, "to keep a drill hole ahead of workings in first right entry, to guard against danger from a body of CH, supposed to exist in abandoned workings of Monero No. 2 mine," had not been followed. The manager, Mr. George W. Kutz, promised to follow instructions in future.

December 7, 1900.—Inspected Kutz mine. Air intake 3,112 cubic feet per minute; nine miners employed underground; air current weak at working faces, but air fresh; no gas; mine well timbered.

February 21, 1901.—Inspected Kutz mine. Air intake 5,100 cubic feet per minute; twelve miners employed; ventilation fair; no gas; mine generally well timbered.

April 26, 1901.—Inspected Kutz mine. Air intake 3,060 cubic feet per minute; eleven men employed underground; air good at working faces; no gas; mine well timbered.

June 19, 1901.—Inspected Kutz mine. Could get no register on anemometer. No fire in furnace shaft which furnishes ventilation. Only three men at work underground. No air traveling in mine. Instructed that a fire be kept burning in furnace when men at work in mine, and that ventilation be improved. Instructed that additional timbers be placed in rooms in operation. No gas.

MCBROOM MINE.

This mine is located about 1½ miles, in an easterly direction, from the town of Monero, Rio Arriba County, N. Mex. Owned and operated by the McBroom Brothers; James W. McBroom, general manager, Monero, N. Mex. Kind of coal, bituminous; thickness of vein, 3 feet; total output for fiscal year, 1,200 tons; estimated value of output, \$1,800; length of drift, 200 feet; value of improvements,









VIEW OF MADRID, N. MEX., SHOWING HARD COAL BREAKER AND POWER HOUSE PLANT, FOR COOK & WHITE AND LUCAS MINES.

so we worked the loose coal from the bottom and set some props. When the rock fell it struck me on the lamp and put it out. Then another rock fell, and I heard the deceased say he was under the rock. I had no light, so I went into the next room for assistance and to get a light. The boss said last Monday night that the place was not well propped, and we both knew there was danger when we started to move the coal. The boss told me he thought if propped the rock wouldn't fall. The pit boss notified me the night before the accident occurred to prop that rock: the day shift did not prop the rock either. Neither the deceased nor myself are practical miners.

Witness dismissed.

(The above testimony was interpreted to the court by Mr. David Lueras.)

Epifanio Gutierrez, being first duly sworn, on oath deposes and says: I was in my place when the accident happened. My place is 50 feet above deceased's place. Deceased's partner came to me and told me of accident and I went to help him. There was a rock on the legs of the deceased when I first saw him. No, I did not know the condition of the place before the rock fell. I was busy shoveling when rock fell and know nothing about the accident except what I have told.

Witness dismissed.

Peter Marchiando, of lawful age, being first duly sworn, on oath deposes and says: I am driver in No. 1 mine. I was at the room where accident occurred ten minutes before rock fell. I brought some cars there and put some props at the switch where the men could easily get them. That is all I know about the accident until the rope rider told me that the man was hurt.

Witness dismissed.

No further witnesses being had, the testimony was closed.

TERRITORY OF NEW MEXICO, County of Lincoln, ss:

John R. Pels, of lawful age, being first duly sworn, on oath deposes and says: That he was appointed by the justice of the peace, W. C. Cheatham, to take evidence at the inquest made by Coroner Cheatham and jury; that the above and foregoing two and a quarter pages contain a true and correct copy of testimony as taken before said Coroner Cheatham and jury, and that said testimony was transcribed by the affiant from notes taken by him at said coroner's inquest. And further affiant saith not.

JOHN R. PELS.

Subscribed and sworn to before me this 23d day of January, A. D. 1901.

JOS. H. FRANKLIN, *Notary Public.*

McKINLEY COUNTY.

CATALPA MINE.

March 14, 1901.—Antonio Tafolla, age 21 years, nativity Mexican, laborer, injured in Catalpa mine at 11.30 a. m. Cause: Falling of timber. Tafolla did not steady his post as he was told and it became loose in the bent that was being raised and swung out of the bearing at the bottom. He was then warned to go out of the way, but did not, though he had fully a minute to do so. Injured internally. Died as result of his injuries. No coroner's inquest held.

WEAVER MINE.

March 29, 1901.—Henry Applegarth, age 27 years, nativity American; Robert Holman, age 38 years, nativity American; and Henry Dupree, age about 28 years, nativity unknown, all miners, were killed in Weaver mine No. 1, left main entry, room No. 11, at about 12 o'clock p. m. Cause: Suffocated to death. These men were employed as shot firers. They were all the men in the mine. My opinion is that a bad or blow-out shot, combined with a powder flame, stirred up a dust in the working places, causing a slight explosion; that this explosion increased in force until it reached the main entrance to the mine, meeting a much larger air current there and forming a secondary and more violent explosion, the force of the concussion, flame, and dust causing the death of all three men. Hugh McGinn, superintendent, Gibson, N. Mex.

number of boys employed underground 4; number of days mine was operated during fiscal year two hundred and ninety-eight. The product is marketed in New Mexico, Arizona, and California.

RECORD OF INSPECTION.

October 3 and 4, 1900.—Inspected Cerrillos bituminous mine. Found hoisting engines, fan engines, cables, all machinery, and safety lamps in safe condition. Air intake, 39,200 cubic feet per minute. One hundred men employed underground; air well distributed. Made safety-lamp tests at all points where accumulations of CH₄ were likely to be found, but got no cap. Found CH₄ venting into bottom of slope and small feeders at several other places in mine, but gas was immediately diluted far beyond danger point and expelled by strong circulation of air. Mine safely timbered. Ventilation very good.

November 17 and 19, 1900.—Inspected Cerrillos bituminous mine. Air intake, 45,500 cubic feet per minute. Forty-five men employed underground; air well distributed to working faces. Found machinery, cables, and safety lamps all in safe condition. Mine well timbered; ventilation very good.

January 16, 1901.—Inspected Cerrillos bituminous mine. Air intake, 44,100 cubic feet per minute. Eighty-seven men employed underground; air well distributed; no standing gas. Mine well timbered; ventilation very good.

February 26, 1901.—Inspected Cerrillos bituminous mine. Air intake, 45,500 cubic feet per minute. One hundred men employed underground; air well distributed. Found CH₄ venting into mine in small quantities at several places, but immediately dispelled by strong air currents. Mine well timbered.

March 23, 1901.—Inspected Cerrillos bituminous mine. Air intake, 45,500 cubic feet per minute. Sixty-five men employed underground; air well distributed. Found CH₄ venting into bottom of main slope and into second dip plane, but immediately dispelled by strong air currents. Mine well timbered; ventilation very good.

May 14 and 15, 1901.—Inspected Cerrillos bituminous mine. Found machinery, cable, safety lamps, etc., in good condition. Air intake, 43,500 cubic feet per minute. Eighty men employed underground; air well distributed except at bottom of main slope, where only 1,800 cubic feet per minute was traveling and small quantity of CH₄ venting into slope. Considering that too little air was traveling at bottom of slope, called attention of superintendent to same and instructed that air current be increased at that point. Mine well timbered.

June 25 and 27, 1901.—Inspected Cerrillos bituminous mine. Found only one of double hoisting engines in use on account of main shaft of other engine being crystallized and broken. Found excessive loads being hauled with single engine. Air intake, 34,575 cubic feet per minute. Ninety men employed underground; air generally well distributed, but found CH₄ in bottom of second dip plane from second right entry. Instructed that brattice be carried closer to bottom of plane. Mine well timbered and in general safe condition.

Prices paid for labor, mining coal, etc., by the Colorado Fuel and Iron Company on the Cerrillos bituminous mine at Madrid, N. Mex., during the fiscal year ending June 30, 1901.

Thickness of vein, 42 inches.

Mining coal, per ton of 2,400 pounds, mine run, 70 cents. (Commencing July 1, 1901, rates are 70, 75, and 80 cents for 2,400 pounds, run of mine; the different prices in accord with difference in thickness of coal.)

Driving main entry, per yard, \$3.

Driving back entry, per yard, \$1.75.

Driving crosscuts, per yard, \$1.50, run of mine, and \$2 entry.

Driving main slope when in natural coal, per yard, \$6.

Driving raised planes, per yard, \$2.25.

Turning rooms, \$8 each.

Setting rough 7-foot timbers, \$1.

Setting timbers over 9 feet in length, \$2.

Wages paid:

Pit bosses, per month	\$100.00
Fire bosses, per day	3.00
Track layers, per day	2.75
Company timbermen, per day	2.75
General company men, per day	1.50-2.00

OTERO MINE.

May 27, 1901.—Valerio Chiara, age about 35 years, nativity Austrian, miner, killed in Otero mine, second west entry, room No. 9, at 3.30 p. m. Cause: Fall of top coal, body being badly crushed and bones broken. Note: This man was known to us and on our books as Valerio Chiara, while coroner's jury name him Jos. Cerebio. Caledonian Coal Company, by J. S. Bowie, bookkeeper, Gallup, N. Mex.

Coroner's inquest.

[Precinct No. 27.]

We, the undersigned justice of the peace and jury, who sat upon the inquest held this 28th day of May, 1901, on the body of Jos. Cerebio, found in precinct No. 27 of the county of McKinley, find that the deceased came to his death by reason of being crushed by a fall of coal while at work in the Otero mine. We further find that no one was, to the best of our belief, to blame for cause of death.

W. A. WALSH,
Justice of Peace.

W. O. EMERY,
ILL BRANTARI,
M. B. BROWN,
JESUS WYGAN,
WM. CUNNINGHAM,
FRED FINGER,
Jury.

SANTA FE COUNTY.

ANTHRACITE B NO. 33 MINE.

March 22, 1901.—John G. Hold, age 27 years, nativity Swiss, coal miner, was instantly killed in Anthracite B No. 33 mine, main slope, at about 8.30 a. m. Cause: He was evidently making up a cartridge on main slope. Two empty pit cars got away from rope rider on top of hill, which struck him while on main slope. He had been ordered the day previous by mine foreman Gus. J. Johnson to keep his powder in a crosscut, which was convenient. H. J. Elliott, superintendent, Madrid, N. Mex.

Coroner's inquest.

[Precinct No. 19.]

We, the undersigned justice of the peace and jury, who sat upon the inquest held this 23d day of March, 1901, on the body of John G. Hold, found in precinct No. 19 of the county of Santa Fe, N. Mex., find that deceased came to his death on the main slope of Anthracite mine, known as "B 33," by being struck by two empty runaway pit cars. We also find that the accident was purely accidental; one of those accidents which appear unavoidable.

GUS. J. JOHNSON,
Justice of the Peace.

JNO. A. BIERMAN,
JAMES WOOD,
THOS. HARRIS,
WM. E. MATTLY,
AUGUST HEDQUIST,
WM. A. ANDERSON,
Jury.

Table showing name of mine, method of working, power used, efficiency in horsepower, and ventilation.

Name of mine.	Method of working.	Power used.	Efficiency of machinery in horsepower.	Ventilation.
Colfax County:				
Blossburg mines	Drift, double entry, room, and pillar.	Electricity.....	560	Exhaust fan.
Sugarite and Climax.....	Drift, single entry, room, and pillar.	Horses.....		Furnace.
Llewellyn	do			Air shaft.
Dawson	Slope, double entry, room, and pillar. ¹			
Lincoln County:				
Akers mines, Nos. 1 and 4..	Slope, double entry, room, and pillar.	Steam	200	Exhaust fan.
Old Abe	Slope, single entry, room, and pillar.	Horse whim		Air shaft.
Linderman	Slope	Steam	30	Natural.
McKinley County:				
Catalpa	Slope, double entry, room, and pillar.	do	134	Exhaust fan.
Gallup	do	do	170	Do.
Weaver	Drift, double entry, rib, and room.	Steam for tippie and fan.	110	Do.
Thatcher.....	Slope, double entry, room, and pillar.	Steam	274	Do.
Otero	do	do	111	Do.
W. A. Clark mine.....	do	Electricity.....	200	Do.
Rocky Cliff.....	Drift, single entry, room, and pillar.	Horses.....		Furnace.
Union.....	Slope, double entry, room, and pillar.	Steam	20	Do.
Stewart	Drift, single entry, room, and pillar.	Horses.....		Do.
Rio Arriba County:				
Monero, Nos. 1 and 2	Slope, single entry, room, and pillar.	Steam	75	Natural.
Kuts	do	do	30	Furnace.
McBroom	do	Horses.....		Natural.
Santa Fe County:				
Cerrillos Bituminous.....	Slope and two back slopes, double cross entries, room, and pillar.	Steam and compressed air.	350	Exhaust fan.
Cerrillos Anthracite	do	do	200	Do.
Anthracite B, No. 33.....	do	Compressed air	40	Do.
Block coal mine	Slope, single entry, room, and pillar.	Horse whim		Air shaft.
Socorro County:				
Carthage, Nos. 3 and 4.....	do	do		Do.
Duffy	do	Horses.....		Natural.
	Total efficiency of engines in use.		2,494	

¹A large plant is being installed.

Directory of New Mexico coal mines and management in charge, 1901.

Name of mine.	Name of owner.	Name of manager or superintendent.	Post-office.
Colfax County:			
Blossburg mines Nos. 1, 2, 3, 4, 5, and 8.	Raton Coal and Coke Co.	J. van Houton, general manager. J. A. Wiggs, jr., superintendent. M. M. Walsh, assistant superintendent.	Raton, N. Mex. Gardiner, N. Mex. Do.
Climax Sugarite.....	Raton Fuel Co....	A. L. Hobbs, general manager...	Raton, N. Mex.
Llewellyn	Thomas Llewellyn	Thos. Llewellyn, superintendent.	Do.
Dawson	New Mexico Rwy. and Coal Co.	W. P. Thompson, general manager; George T. Peart, superintendent.	Dawson, N. Mex.
Lincoln County:			
Akers mines Nos. 1 and 4.	.....do.....	.....do.....	Capitan, N. Mex.
Old Abe coal mine	Old Abe Co	Jno. Y. Hewitt, general manager.	White Oaks, N. Mex.
McKinley County:			
Gallup mine.....	} Colorado Fuel and Iron Co.	John T. Kebler, general manager.	Boston Building, Denver.
Weaver mine.....		W. M. Weaver, general superintendent.	Gallup, N. Mex.
Catalpa mine.....	.....do.....	Hugh McGinn, mine superintendent.	Gibson, N. Mex.
W. A. Clark mine	W. A. Clark	Same officers as above, except Thomas Ramsey, mine superintendent.	Gallup, N. Mex.
Otero mine.....	Calendonian Coal Co.	W. L. Bretherton, agent.....	Clarkville, N. Mex.
Thatcher mine.....	.....do.....	Alex. Bowle, general manager; John Stewart, superintendent.	Gallup, N. Mex.
Rocky Cliff	Stephen Canavan.	James W. Bowle, superintendent.	Do.
Union mine.....	Union Coal Co....	Stephen Canavan, general manager.	Do.
Stewart mine.....	Santa Fe Pacific Rwy. Co., Wm. Stewart, lessee.	Wm. McVickers, general manager William Stewart, superintendent.	Do.
Rio Arriba County:			
Monero No. 1 and Monero No. 2.	Rio Arriba Coal Co.	J. H. Crist, general manager	Monero, N. Mex.
Kutz mine.....	George W. Kutz..	George W. Kutz, general manager.	Lumberton, N. Mex.
McBroom's mine	McBroom Bros ...	J. C. McBroom, superintendent...	Monero, N. Mex.
Santa Fe County:			
Cerrillos Bituminous, Cerrillos Anthracite, and Anthracite B No. 33.	} Colorado Fuel and Iron Co.	Jno. T. Kebler, general manager.	Boston Building, Denver, Colo.
Block coal mine.....		H. J. Elliott, superintendent.....	Madrid, N. Mex.
Socorro County:			
Carthage No. 3 and No. 4.	Block Coal Co....	J. T. McLaughlin, superintendent	San Pedro, N. Mex.
Duffy mine	Carthage Coal Co.	A. H. Hilton, general manager...	San Antonio, N. Mex.
San Juan County:			
Bruce mine.....	Robt. Duffy & Co..	Robert Duffy, superintendent....	Do.
Thomas mine.....	R. E. Bruce.....	R. E. Bruce, superintendent.....	Jewett, N. Mex.
Morgan mine.....	W. H. Thomas....	W. H. Thomas, superintendent...	Aztec, N. Mex.
Stevens mine.....	George Morgan...	George Morgan, superintendent...	La Plata, N. Mex.
	Walter Stevens...	Walter Stevens, superintendent...	Farmington, N. Mex.

COAL MINES OPENED DURING FISCAL YEAR ENDING JUNE 30, 1901.

- Blossburg No. 1, Colfax County, N. Mex. Old mine reopened.
- Blossburg No. 2, Colfax County, N. Mex. Dutchman Canyon mines.
- Blossburg No. 3, Colfax County, N. Mex. Dutchman Canyon mines.
- Blossburg No. 4, Colfax County, N. Mex. Old mine reopened.
- Sugarite mine, Colfax County, N. Mex. Old mine reopened.
- Dawson mine, Colfax County, N. Mex. Very extensive operation started.
- Weaver mine, McKinley County, N. Mex.
- Anthracite B. No. 33, Santa Fe County, N. Mex.
- Duffy mine, Socorro County, N. Mex.

MINES ABANDONED.

Blossburg No. 6, Colfax County, N. Mex. Seam roily and cut by basalt intrusions.
 Blossburg No. 9, Colfax County, N. Mex. Seam roily and cut by basalt intrusions.
 Ayers No. 7, Lincoln County, N. Mex. Worked out.

Coal production of New Mexico for the fiscal year ending June 30, 1901.

Name of mine.	Men employed.		Tons of coal mined.		Estimated value of product 1900-1901.
	1899-1900.	1900-1901.	1899-1900.	1900-1901.	
Colfax County:					
Raton Coal and Coke Co.'s mines—					
Blossburg mines Nos. 5, 6, 8, and 9.	498	243	391,618	326,246	\$326,246
Raton Fuel Co.'s mines—					
Climax and Sugarite	6	6	1,890	3,000	5,000
Llewellyn mine	2	2	300	2,500	2,500
Dawsou mine	1	1	300	300	450
Total	507	252	394,108	332,046	334,196
Lincoln County:					
New Mexico Fuel Co.'s mines—					
Akers No. 1, Akers No. 4, Ayers Nos. 6, 7, 8, and 10	194	185	83,814	169,440	\$26,890
Old Abe	10	7	4,246	3,342	5,394
Total	204	192	88,060	172,782	332,284
McKinley County:					
Colorado Fuel and Iron Co.'s mines—					
Gallup	225	220	180,000	145,000	145,000
Weaver		135		50,000	58,500
Catalpa	106	145	80,000	77,664	107,800
Caledonian Coal Co.'s mines—					
Thatcher	89	90	32,000	37,813	64,948
Otero	183	100	89,000	26,338	42,768
Rocky Cliff	50	68	28,100	26,400	35,640
Union	12	10	3,000	8,000	13,200
Stewart	18	15	6,000	6,000	10,000
W. A. Clark mine	238	250	90,050	155,000	200,000
Total	920	1,083	508,150	531,215	677,856
Rio Arriba County:					
Monero Nos. 1 and 2	42	46	30,000	35,400	48,000
Kutz	17	10	4,000	15,000	20,000
McBroom's	4	4	1,706	1,200	1,200
Total	63	60	35,706	51,600	69,200
Santa Fe County:					
Block coal mine	5	4	1,139	2,400	4,800
Colorado Fuel and Iron Co.'s mines—					
Cerrillos bituminous	128	90	145,000	71,682	102,300
Cerrillos anthracite	97	49	45,000	39,748	90,077
Anthracite B. No. 33		16		1,516	3,568
Total	230	159	191,139	115,346	200,740
Socorro County:					
Duffy mine		10		1,116	3,627
Carthage Nos. 3 and 4	17	40	6,000	13,000	23,400
Total	17	50	6,000	14,116	27,027
San Juan County:					
Bruce	1		100	100	125
Thomas	2	2	150	325	406
Morgan			250		
Stevens	(¹)				
Total	(²)		500	425	531

¹ No returns.

² Incomplete.

Production by counties.	Output for fiscal year ending June 30, 1901.	Estimated value.	Per cent of tonnage.
	<i>Tons.</i>		
Colfax.....	382,046	\$334,196	27.272
Lincoln.....	172,782	332,264	14.191
McKinley (formerly Bernalillo County).....	531,215	642,216	43.630
Rio Arriba.....	51,600	69,200	4.288
Santa Fe.....	115,346	200,740	9.473
Socorro.....	14,116	27,027	1.159
San Juan (incomplete, but trivial).....	425	581	34
Total.....	1,217,530	1,806,174	99.997

The production for the previous fiscal year, ending June 30, 1900, was 1,187,334 tons. This shows but a slight increase in production, 30,196 tons. Scarcity of miners restricted the production at all the coal mines of the Territory. The miners' strike at Gallup, N. Mex., caused a loss in production at the Colorado Fuel and Iron Company's mines of 150,000 tons, and at the W. A. Clark mine 5,000 tons, and at the Rocky Cliff mine 20,000 tons, as this mine was practically shut down one-half of the year by reason of the strike. Had the strike not interfered with the operations of these prominent mines, the increase in production would have been 205,196 tons, even with the inadequate labor supply at hand, and were a full complement of miners obtainable the increase would assuredly have been from 50 to 100 per cent over the previous fiscal year. These calculations are fully sustained by reason of the great demand for coal made by the transportation companies, the railroads confiscating all coal produced, and on the other hand the coal was already developed in the mines and ready for extraction. The only factor lacking to insure the increase of production mentioned was the labor to mine the coal.

EMPLOYEES.

The following tabulated statement shows the number of miners, laborers, and boys employed in and about the coal mines of the Territory of New Mexico during the fiscal year ending June 30, 1901:

County.	Miners.	Manual laborers of all kinds other than miners.	Boys.	Total.
Colfax.....	227	23	25	275
Lincoln.....	166	51	11	228
McKinley.....	903	129	15	1,047
Rio Arriba.....	54	9	3	66
Santa Fe.....	118	41	26	185
Socorro.....	50	14	.....	64
San Juan.....	5	.....	.....	5
Total.....	1,523	267	80	1,870

By comparison with the preceding fiscal year the above table shows a decrease of 145 in number of employees—135 less miners and 10 boys. The decrease in number of employees was due solely to the scarcity of miners. Nearly all of the more important operators have agents in different coal-mining sections of the United States and British possessions seeking to employ miners, and paying their fare and expenses to New Mexico.

FATAL ACCIDENTS.

There were reported to me, as United States mine inspector, 9 fatal accidents during the fiscal year ending June 30, 1901.

The causes to which the fatalities were attributed were as follows: By dust explosion, 3; fall of rock, 2; fall of top coal, 1; by pit car, 1; struck by swaying timber in

construction of new tippie, 1; thrown over fly wheel while starting engine off center with head of steam on, 1.

County.	Tons of coal mined.	Lives lost.	Number of tons of coal mined for each life lost.
Colfax.....	332,046	1	332,046
Lincoln.....	172,782	1	172,782
McKinley.....	581,215	6	66,535½
Rio Arriba.....	51,600	.....	.....
Santa Fe.....	115,346	1	115,346
Socorro.....	14,116	.....	.....
San Juan (incomplete, but trivial amount).....	425	.....	.....
Total.....	1,217,580	9	.....

Total number of tons mined in New Mexico during fiscal year 1,217,580
 Total number of lives lost during fiscal year 9
 Total number of tons mined for each life lost 135,281½

NONFATAL ACCIDENTS.

Only eleven nonfatal accidents have been reported to this office during the fiscal year. Knowing to almost a positive certainty that this is an incomplete list, I believe it would be an injustice to the managers of the mines where these accidents occurred to publish the list, while others would make a more creditable showing who have declined to report such accidents, as there is no specific requirement to do so in the law. Hence I refrain from reporting details for publication.

PRODUCTION OF COKE DURING FISCAL YEAR ENDING JUNE 30, 1901.

At the ovens of the Raton Coal and Coke Company, Gardiner, Colfax County, N. Mex., there were produced, from coal mined from Blossburg mines Nos. 5 and 6, 21,361.30 tons of coke, of an estimated value of \$2.50 per ton at the ovens; total value, \$53,403.25.

At the Colorado Fuel and Iron Company's ovens, at Waldo, Santa Fe County, N. Mex., there were produced, from coal mined at Starkville, Las Animas County, Colo., 21,371 tons.

The production of coke from New Mexico coal fields will be largely increased in the near future. The New Mexico Fuel Company is erecting 100 coke ovens at the Dawson mine, Colfax County, N. Mex. Several other mine owners contemplate the building of coke ovens.

ANALYSIS OF NEW MEXICO COALS.

MCKINLEY COUNTY.

Analysis of coal from Catalpa mine, near Gallup, McKinley County, N. Mex.

[Owned and operated by Colorado Fuel and Iron Company.]

	Per cent.
Moisture.....	6.66
Volatile matter.....	40.13
Fixed carbon.....	45.56
Ash.....	7.65
Total.....	100.00

Analysis of coal from Weaver mine at Gibson, near Gallup, McKinley County, N. Mex.

[Owned and operated by Colorado Fuel and Iron Company.]

	Per cent.
No. 3 seam:	
Moisture.....	9. 13
Volatile matter.....	38. 45
Fixed carbon.....	49. 43
Ash.....	2. 99
Total.....	100. 00
<hr/>	
No. 5 seam:	
Moisture.....	8. 23
Volatile matter.....	40. 61
Fixed carbon.....	45. 17
Ash.....	5. 99
Total.....	100. 00

The Gallup mine is being operated upon the same coal seams as the Weaver mine, viz, No. 3 and No. 5, and analysis of coal is similar to that given above for those seams.

COLFAX COUNTY.

Analysis of coal and coke produced from Raton Coal and Coke Company's mines at Raton, Colfax County, N. Mex.

Coal from Raton Coal and Coke Company:	Per cent.
Water.....	0. 75
Volatile matter.....	34. 40
Fixed carbon.....	56. 93
Mineral ash.....	7. 92
Total.....	100. 00
<hr/>	
Coke.....	64. 85
Character of coke, very strong and tough.	
Color of ash, very light ochre.	
Character of ash, soft and light.	
Sulphur (as sulphide).....	. 016
Sulphur (as sulphate).....	. 022
Phosphorus.....	. 014
Specific gravity.....	1. 291
One cubic foot weighs.....	¹ 88. 690
<hr/>	
Analysis of mineral ash:	
Silica.....	44. 16
Alumina.....	39. 28
Oxide of iron.....	2. 95
Calcium oxide.....	7. 41
Magnesium oxide.....	3. 27
Sulphate of calcium.....	. 41
Alkalies and loss.....	2. 52
Total.....	100. 00

¹ Pounds.

SANTA FE COUNTY.

Analysis of coal from the Cerrillos bituminous mine of the Colorado Fuel and Iron Company at Madrid, Santa Fe County, N. Mex.

[Made by W. D. Church, December 2, 1893.]

	Per cent.
Water	2.00
Volatile matter	39.00
Fixed carbon	53.76
Mineral ash	5.24
Total	100.00
Coke	59.00
Character of coke, strong and tough.	
Color of ash, light yellowish gray.	
Character of ash, soft and light.	
Sulphur (as sulphide) .....	.010
Sulphur (as sulphate) .....	.022
Phosphorus .....	.006
Specific gravity	1.410
One cubic foot weighs	¹ 88.125
Analysis of mineral ash:	
Silica	26.93
Alumina	32.41
Oxide of iron	3.98
Calcium oxide	24.68
Magnesium oxide	10.32
Calcium sulphate .....	.21
Alkalies and loss	1.49
Total	100.00

As no analysis of recent date was obtainable, the above was copied from report of former United States mine inspector.

LINCOLN COUNTY.

Analysis of coal from New Mexico Fuel Company's mines at Capitan, Lincoln County, N. Mex.

	Per cent.
Water	0.75
Volatile matter	41.25
Fixed carbon	47.00
Ash	11.00
Total	100.00
Sulphur .....	.735

Analysis of coke from New Mexico Fuel Company's mines.

Mr. Hills, the geologist of the Colorado Fuel and Iron Company, who examined the property, constructed a coke oven of adobe bricks and coked some of the coal from the Akers seam, which gave the following analysis:

	Per cent.
Water	1.450
Volatile matter	3.900
Fixed carbon	76.825
Ash	17.825
Total	100.000
Sulphur	611

¹ Pounds.

COAL MINES OF NEW MEXICO.

SOCORRO COUNTY.

Analysis of coal from Carthage mine No. 3, Carthage Coal Company.

Moisture .....	.....
Volatile matter.....	.....
Fixed carbon .....	.....
Ash .....	.....
Sulphur .....	.....
Total .....	.....

LAWS GOVERNING THE WORKINGS OF COAL MINES IN THE TERRITORIES.

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, That in each organized and unorganized Territory of the United States wherein are located coal mines, the aggregate annual output shall be in excess of one thousand tons per annum, the President shall appoint a mine inspector, who shall hold office until his successor is appointed and such inspector shall, before entering upon the discharge of his duties, give to the United States in the sum of two thousand dollars, conditioned for the discharge of his duties.

SEC. 2. That no person shall be eligible for appointment as mine inspector under section 1 of this act who is not either a practical miner or mining engineer, has not been a resident for at least six months in the Territory for which he is appointed; and no person who shall act as land agent, manager, or agent of a mine, or as mining engineer, or be interested in operating any mine in such Territory shall be at the same time an inspector under the provisions of this act.

SEC. 3. That it shall be the duty of the mine inspector provided for in this act to make careful and thorough inspection of each coal mine operated in such Territory and to report at least annually upon the condition of each coal mine in said Territory with reference to the appliances for the safety of miners, the number of ventilating shafts, the number of shafts or slopes for ingress or egress, the character and condition of the machinery for ventilating such mines, and the quantity of air supplied to same. Such reports shall be made to the governor of the Territory in which such mines are located and a duplicate thereof forwarded to the Secretary of the Interior, and in case of an unorganized Territory directly to the Secretary of the Interior.

SEC. 4. That in case the said mine inspector shall report that any coal mine is not properly constructed or not furnished with reasonable and proper machinery and appliances for the safety of the miners and other employees it shall be the duty of the governor of such organized Territory, it shall be the duty of the Secretary of the Interior to give notice to the owners or managers of said coal mine that the mine is unsafe, and notifying them in what particular the same is unsafe, and to require them to furnish or provide such additional machinery, slopes, entries, escape, ventilation, or other appliances necessary to the safety of the miners and other employees within a period to be in said notice named, and if the same is not furnished as required in said notice it shall be unlawful after the time fixed in said notice for the said owners or managers to operate said mine.

SEC. 5. That in all coal mines in the Territories of the United States the owners or managers shall provide at least two shafts, slopes, or other outlets, separate from the main strata of not less than one hundred and fifty feet in breadth, by which shafts, slopes, or outlets distinct means of ingress and egress shall always be available for the persons employed in said mine. And in case of the failure of any coal mine to provide the same, it shall be the duty of the mine inspector to make report of such failure thereupon notice shall issue, as provided in section four of this act, and shall have the same force and effect.

SEC. 6. That the owners or managers of every coal mine, at a depth of one hundred feet or more, shall provide an adequate amount of ventilation of not less than five cubic feet of pure air per second, or thirty-three hundred cubic feet per minute for every fifty men at work in said mine, and in like proportion for a greater number of men, which air shall, by proper appliances or machinery, be forced through

mine to the face of each and every working place, so as to dilute and render harmless and expel therefrom the noxious or poisonous gases, and all workings shall be kept clear of standing gas.

Sec. 7. That any mine owner or manager who shall continue to operate a mine after failure to comply with the requirements of this act and after the expiration of the period named in the notice provided for in section four of this act, shall be deemed guilty of a misdemeanor, and shall be fined not to exceed five hundred dollars.

Sec. 8. That in no case shall a furnace shaft be used or for the purposes of this act be deemed an escape shaft.

Sec. 9. That escape shafts shall be constructed in compliance with the requirements of this act within six months of the date of the passage hereof, unless the time shall be extended by the mine inspector, and in no case shall said time be extended to exceed one year from the passage of this act.

Sec. 10. That a metal speaking tube from the top to the bottom of the shaft or slope shall be provided in all cases, so that conversation may be carried on through the same.

Sec. 11. That an approved safety catch shall be provided and sufficient cover overhead on every carriage used in lowering or hoisting persons. And the mine inspectors shall examine and pass upon the adequacy and safety of all such hoisting apparatus.

Sec. 12. That no child under twelve years of age shall be employed in the underground workings of any mine. And no father or other person shall misrepresent the age of anybody so employed. Any person guilty of violating the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not to exceed one hundred dollars.

Sec. 13. That only experienced and competent and sober men shall be placed in charge of hoisting apparatus or engines. And the maximum number of persons who may ascend or descend upon any cage or hoisting apparatus shall be determined by the mine inspector.

Sec. 14. That it shall be lawful for any inspector to enter and inspect any coal mine in his district and the work and machinery belonging thereto at all reasonable times, but so as not to impede or obstruct the workings of the mine; and to make inquiry into the state of the mine, works, and machinery, and the ventilation and mode of lighting the same, and into all matters and things connected with or relating to the safety of the persons employed in or about the same, and especially to make inquiry whether the provisions of this act are complied with; and the owner or agent is hereby required to furnish means necessary for such entry, inspection, examination, and inquiry, of which the said inspector shall make an entry in the records of his office, noting the time and material circumstances of the inspection.

Sec. 15. That in all cases of fatal accident a full report shall be made by the mine owner or manager to the mine inspector, said report to be in writing and made within ten days after such death shall have occurred.

Sec. 16. That as a cumulative remedy, in case of the failure of any owner or manager of any mine to comply with the requirements contained in the notice of the governor of such territory or the Secretary of the Interior, given in pursuance of this act, any court of competent jurisdiction or the judge of such court in vacation may, on the application of the mine inspector, in the name of the United States and supported by the recommendation of the governor of said Territory or the Secretary of the Interior, issue an injunction restraining the further operation of such mine until such requirements are complied with, and in order to obtain such injunction no bond shall be required.

Sec. 17. That wherever the term "owner or manager" is used in this act, the same shall include lessees or other persons controlling the operation of any mine. And in case of the violation of this act by any corporation, the managing officers and superintendents and other managing agents of such corporation shall be personally liable and shall be punished as provided in the act for owners and managers.

Sec. 18. That the mine inspectors provided for in this act shall each receive a salary of two thousand dollars per annum, and their actual traveling expenses when engaged in their duties.

Sec. 19. That whenever any organized Territory shall make or has made provision by law for the safe operation of mines within such Territory, and the governor of such Territory shall certify said fact with a copy of the said law to the Secretary of the Interior, then and thereafter the provisions of this act shall no longer be enforced in such organized Territory, but in lieu thereof the statute of such Territory shall be operative in lieu of this act.

RECOMMENDATIONS.

As shown by statistics, the great majority of fatalities, as also nonfatal accidents, occur from falling roof and sides in the coal mines. In this direction, then, I gave prime attention. To my surprise, I discovered that the great obstacle in the way of diminishing this great danger to the miner is the miner himself. In many instances familiarity with the danger, coupled with fortunate escapes, has rendered him absolutely indifferent to his peril, and it is a most ungracious task to induce him to place the necessary timbers to protect himself from dangerous roof and sides. Procrastination appears to be the miner's great weakness when it comes to timbering his working place. He will just drill another hole or two, pick down some loose coal, or load another car or two of coal, and then he intends to timber the ground safely; but during all of this time life and limb are in imminent peril, of which the miner seems utterly oblivious. And the task of timbering would require neither more time nor effort to perform ere he drilled another hole or loaded the car, which could then be done in almost absolute safety.

It may be cited that it is the duty of the mine boss to insist upon the miner timbering his ground safely. This is true, but the mine boss of to-day in New Mexico, and I think elsewhere the same, can not issue an arbitrary or peremptory order to timber an opening, even though such order is right, and that it is his duty to issue such order for the protection of the miner from physical danger, as well as the mine owner from financial loss. The rigid enforcement of the proper rules would, in many instances, lead to the loss of a large proportion of the workmen, who would quickly find employment elsewhere, this class of labor being in great demand.

In several instances have I seen the mine inspector gladly welcomed by the mine manager, that he might use his governmental authority to enforce proper and safe methods of timbering and working among the miners, which the mine manager dare not insist upon, fearing to lose his working force.

The gross absurdity is apparent of a law which imposes upon the mine owner the protection of the miner from physical danger, while the miner interposes his negligence as an obstacle to the process of protection, and yet is not amenable under the law for the negligence whereby he endangers the lives of fellow-workmen as well as his own life.

There is no specific requirement in the law compelling mine operators to keep a record of nonfatal accidents and communicate the same to the mine inspector. Yet this is a matter of much importance, as every accident, no matter how trivial, serves to indicate such laxity as may have prevailed in operating the mine during the intervals between the mine inspector's visits.

Certain duties are imposed upon the United States mine inspector in regard to maintaining safe conditions in the mine, but if the mine inspector fulfills or attempts to fulfill these duties how onerous his task is found! The law places at his command a futile authority invested in himself, and a forcible authority to be exercised by the circuitous medium of cooperation of the Secretary of the Interior or governor of the Territory, and resort to the cumbersome legal process of an injunction. Why should any sensible official be required to put in motion such ponderous legal process to remedy some trifling defect in the operation of a mine? It may be said it is not worth paying so serious attention to trifling defects. But those very trifling defects may lead to a great catastrophe and loss of life. Other mine inspectors, appointed by State authority, can complain to a magistrate or justice of the peace and have the party responsible for such negligence in operation of the mine cited to appear and answer for his culpability. The very fact that this authority is vested in the mine inspector has a beneficial influence and will cause operators and miners to be more careful. The United States mine inspector can exercise no such influence, but must consume a portion of his time in appealing to the miner to do his duty for his own protection. The law should be so amended that the culprit could, on complaint of the United States mine inspector, be cited to appear before a United States judge or United States commissioner, and upon conviction by a jury be punished by fine or imprisonment. Men chosen for such positions as United States mine inspector are usually endowed with the ordinary amount of discretion, and they should be allowed to use it in case of breaches of the law, just as internal-revenue officers and others do, without waiting to consult and gain the cooperation of the honorable Secretary of the Interior or of the governor of the Territory.

It is therefore respectfully recommended that the United States laws governing the operation of coal mines be amended in these particulars.

DUST EXPLOSIONS.

A few suggestions in regard to methods to be employed to avoid this great danger to life and property appear to be timely and pertinent. The majority of coal measures of New Mexico are free from CH_4 and the resultant fire damp, so far as at present developed. But in the many dry areas of the lignite and bituminous fields there is ever present the imminent menace of dust explosion. To obviate this danger the futile system of employing shot firers has been resorted to in some mines. By this means the loss of life is minimized, as all the employees except shot firers are supposed to be out of the mine before the shot firing is commenced. Thus only the lives of the shot firers are endangered, if the rule be strictly adhered to that all others are out of the vicinity of danger. But the employment of shot firers is simply a perpetuation of the probability of dust explosion, for the following reasons:

The incessant concussion and violent disturbance of the atmosphere produced by the exceedingly great number of shots fired within such short space of time throws into the air and holds in suspension a sufficient quantity of dust to reach the explosive point, if ignited, or produces a very near approach to such condition. No shot firer nor miner can be absolutely sure to avoid blown-out shots, unless he is hypercritical and condemns many holes which only approach the danger line, and the condemning of such holes will most likely lead to great dissatisfaction and labor trouble in the mine. With the two factors present, viz, an atmosphere charged to the explosive point with dust and the liability to a blown-out shot which may add to the dust already in suspension and then ignite and explode it—with these two factors ever present under the shot-firing system, there is ever great danger of a dust explosion. Then why not obtain absolute immunity from dust explosion by the unequivocal, certain, and more economical method of saturating the dry areas with water? It goes without saying that "a dust explosion can not occur without dust." Hence, when dust is dampened to the consistency of clod it ceases to be dust; it is impossible to hold it in suspension in the atmosphere, or to ignite it by a blown-out shot, and all danger of a dust explosion is absolutely eliminated, with its consequent loss of life and destruction of property.

If the aforementioned condition of dampness is maintained, the air current becomes saturated and soon deposits moisture upon the rib and roof.

Nor is this so difficult nor expensive, as most of the coal mines of New Mexico have reached the water level and are pumping water to waste that might be utilized to protect the dry portions of the mine from dust explosions.

Two recent cases of dust explosion have demonstrated the truth and pertinence of the foregoing—one at the Weaver mine, at Gallup, N. Mex., March 29, 1901, and the other more recently at the Spring Gulch mine, in southern Colorado. In both cases the shot firers were performing their duties. All of the miners were out of the Weaver mine and only the three shot firers were killed. At Spring Gulch mine the only man in the mine, a shot firer, was killed, also five miners at the mouth of the slope. In both cases the mines were wrecked.

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